

Dean K. Matsuura Manager Regulatory Affairs

January 26, 2010

The Honorable Chairman and Members of the Hawaii Public Utilities Commission Kekuanaoa Building, 1st Floor 465 South King Street Honolulu, Hawaii 96813 PUBLIC UTILITIES

Dear Commissioners:

Subject: Docket No. 2009-0108 – Proposed Amendments to the IRP Framework Combined Proposed Frameworks

Pursuant to the Commission's letter dated January 22, 2010, at the request of the Commission's consultant, the National Regulatory Research Institute, and directing the Hawaiian Electric Companies¹ to provide a black-lined version of the IRP Framework that incorporates all of the Parties' proposed changes to the Framework, enclosed for filing is a document that incorporates all proposed changes² to the IRP Framework.

Very truly yours,

Enclosures

cc: Service List

¹ The "Hawaiian Electric Companies" are Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited.

² Proposed amendments to the IRP Framework were submitted by the following parties as part of their respective Final Statement of Positions: Hawaiian Electric Companies; Counties of Hawaii, Kauai, and Maui; Kauai Island Utility Cooperative; Department of Business, Economic Development and Tourism, and Marriotts. Comments to the proposed frameworks were submitted by HSEA; Blue Planet Foundation, HREA, Life of the Land, and Haiku Design and Analysis.

PUBLIC UTILITIES COMMISSION STATE OF HAWAII

A PROPOSED FRAMEWORK FOR INTEGRATED RESOURCE CLEAN ENERGY SCENARIO PLANNING March 9, 1992

Revised December 21, 2009

I. Definitions

Comment [LA1]: HREA believes that there should be further discussion on this section.

Unless otherwise clear from the context, as used in this framework:

[CTYS] "Action" (as used in the context of a utility action plan) means any specific activity (resource option, study, program, measure, etc.) that the utility intends to implement in order to provide required services and/or attain planning objectives.

[HECO Cos] "Action Plan" means a program implementation schedule representing a strategy or timetable based on the scenarios analyzed for achieving the utility's clean energy objectives over the first five-year period of the 20-year planning horizon. The five-year period of the Action Plan is updated with the utility's evaluation report by dropping the preceding year from the schedule and including a new year.

[DBEDT] "Action Plan" or "CESP Action Plan" is a strategy for serving Hawaii's future energy needs and requirements in a manner that is consistent with the planning framework, and includes executable or actionable programs, measures, and/or policies with an implementation schedule or timetable.

[CTYS] "Action plan" means a program implementation schedule, as part of a utility's integrated resource plan, representing a strategy, including a timetable of programs, projects, and activities designed to meet energy objectives over the first five to ten year period of the 20-year planning horizon, including the State of Hawai'i's clean energy objectives.

[KIUC] "Action plan" or "5-year action plan" means an implementation plan included as part of the integrated resource plan that provides a detailed action plan covering the first five years of the 20-year horizon.

[HECO Cos]—"Capital investment costs" means costs associated with capital improvements, including planning, the acquisition and development of land, the design and construction of new facilities, the making of renovations or additions to existing facilities, the construction of built-in equipment, and

consultant and staff services in planning, design, and construction. Capital investment costs for a program are the sum of the program's capital improvement project costs.

Comment [LA2]: Marriotts also propose to delete definition of "Capital investment costs"

[DBEDT] "Capital investment costs" means costs associated with capital improvements, including planning, the acquisition and development of land, the design and construction of new facilities, the making of renovations or additions to existing facilities, the construction of built-in equipment, and consultant and staff services in planning, design, and construction. Capital investment costs for a program are the sum of the program's capital improvement project costs.

[HECO Cos] "CHP" means combined heat and power system which is an electricity generating system whose waste heat is captured and used for heating and/or cooling applications.

[CTYS] "CHP" means the production of useful heat and electricity from the same process or source.

[HECO Cos] "Clean energy" means electrical energy generated using renewable energy as a source or as electrical energy savings brought about by the use of renewable displacement or off-set technologies or energy efficiency technologies as defined as "renewable electrical energy" in HRS ch. 269, part V, section 269-91.

[DBEDT] "Clean energy" means electrical energy generated using renewable energy as a source or as electrical energy savings resulting from the use of energy efficiency technologies or measures such as renewable displacement or off-set technologies, as well as electrical energy savings from conservation, and demand-side management programs including demand response programs and rate design.

[HECO Cos] "Clean Energy Investment Zones" means areas shown on the Locational Value Map where there is a high value to incremental investment in distributed generation, demand response, energy efficiency, or CHP.

[HECO Cos] "Clean energy objectives" means moving Hawaii towards achieving a sustainable, clean, flexible, and economically vibrant energy future.

[DBEDT] "Clean Energy Objectives" means reducing Hawaii's dependence on imported fossil fuels and increasing Hawaii's energy self-sufficiency and energy security through energy efficiency and increased use of clean renewable energy resources.

Comment [Leo Asunc3]: Counties propose same definition for "Clean energy"

[CTYS] "Clean Energy Objectives" or "CE Objectives" means moving the State of Hawai'i off of fossil fuel use and on to Clean Energy use, as mandated by federal, State and county laws (including, but not limited to, HRS ch. 269, pt. V, as amended), and as may be informed by policy statements and quidance.

[HECO Cos] "Clean Energy Scenario Planning" or "CESP" means the process governed by this framework which is a mandatory guide for the utilities.

[KIUC] "Commission" means the State of Hawaii Public Utilities Commission.

[KIUC] "Consumer Advocate" means the Division of Consumer Advocacy, Department of Commerce and Consumer Affairs.

[HECO Cos] "Costs" means the full and life cycle costs of a resource option.

[HECO Cos] "Cost categories" means the major types of costs and includes research and development costs, investment costs, and operating and maintenance costs.

[DBEDT] "Costs" means the full and life cycle costs of a resource option.

[DBEDT] "Cost categories" means the major types of costs and includes research and development costs, investment costs or capital expenditures, and energy efficiency programs or DSM costs, operating and maintenance costs including fuel and purchased power costs, taxes, and depreciation expense.

[HECO Cos] "Cost elements" means the major subdivision of a cost category. For the category "investment costs, it includes capital investment costs, initial equipment and furnishing costs, and initial education and training costs. For the categories "research and development costs" and "operating and maintenance costs," it includes labor costs, fuel costs, materials and supplies costs, and other current expenses.

[HECO Cos] "Demand-side management programs" or "DSM" means programs designed to influence utility customer uses of energy to produce desired changes in demand. It includes conservation, load management, and efficiency resource programs energy efficiency, demand response, and renewable substitution.

Comment [LA4]: Haiku Design and Analysis comments that this definition needs refinement.

Comment [Leo Asunc5]: Counties and KIUC retain current definitions for "Costs" and "Cost categories"

Comment [Leo Asunc6]: Counties and KIUC retain current definition for "Cost elements" [DBEDT] "Demand-side management programs" or "DSM" means programs designed to influence utility customer uses of energy to produce desired changes in demand and energy consumption. It includes conservation, load management, rate design, and efficiency resource programs.

[CTYS] "Demand-side management—programs" or "DSM" means program programs designed to influence utility customer uses of energy to produce desired changes in electricity demand—tt includes, including, but not limited to, conservation, load management, and efficiency resource programs. energy efficiency, demand response, load management, rate and fee design measures (e.g., declining block rate designs, generation hook-up fees, and standby charges), and renewable substitution.

[KIUC] "Demand-side management" means a program or programs implemented to influence utility customer uses of energy to produce desired changes in energy requirements to the utility or as a whole. It includes conservation, load management, efficiency improvements and renewable resources.

[HECO Cos] "Design costs" means the costs related to the preparation of architectural drawings for capital improvements, from schematics to final construction drawings.

[DBEDT] "Design costs" means the costs related to the preparation of architectural drawings for capital improvements, from schematics to final construction drawings.

[HECO Cos] "Distributed Generation" or "DG" means small-scale electric generating technologies installed at, or in close proximity to, the end-user's location.

[CTYS] "Distributed Generation" or "DG" means electric generating technologies installed at, or in close proximity to, the end-user's location including, but not limited to, renewable energy and combined heat and power ("CHP") facilities, and dispatchable emergency generators.

[HECO Cos] "Effectiveness measure" means the criterion for measuring the degree to which the objective sought is attained.

[DBEDT] "Effectiveness measure" means the criterion for measuring the degree to which the objective sought is attained achieved.

[HECO Cos] "Energy Agreement" means the October 2008 Energy Agreement Among the State of Hawaii, Division of Consumer

Comment [Leo Asunc7]: DBEDT and KIUC retain definition of "Design costs"

Comment [Leo Asunc8]: DBEDT proposes same definition for "Distributed Generation"

Comment [LA9]: Marriotts propose similar definition for "Distributed Generation"

Comment [Leo Asunc10]: Counties and KIUC retain current definition of "Effectiveness measure"

Advocacy of the Department of Commerce and Consumer Affairs, and the Hawaiian Electric Companies.

Comment [LA11]: Marriotts propose deletion of "Energy Agreement" definition

[HECO Cos] "External benefits" means external economies; benefits to or positive impacts on the activities of entities outside the utility and its ratepayers. External benefits include environmental, cultural, and general economic benefits.

Comment [Leo Asunc12]: DBEDT and KIUC retain definition of

"External benefits"

[DBEDT] "External benefits" means external economies; benefits to or positive impacts on the activities of entities outside the utility and its ratepayers. External benefits include environmental, cultural, and general economic benefits.

[HECO Cos] "External costs" means external diseconomies; costs to or negative impacts on the activities of entities outside

the utility and its ratepayers. External costs include environmental, cultural, and general economic costs.

[DBEDT] "External costs" means external diseconomies; costs to or negative impacts on the activities of entities outside the

or negative impacts on the activities of entities outside the utility and its ratepayers. External costs include environmental, cultural, and general economic costs.

[HECO Cos] "Feed-in Tariff" or "FIT" means a mechanism for the procurement of renewable resources in the HECO Companies' service territories. The general principles for the implementation of FIT will apply to photovoltaic, concentrated solar power, onshore wind, and in-line hydropower projects up to 5MW depending on technology and location. FIT rates will be based on the project cost and reasonable profit of a typical project with rates differentiated by technology or resource, size and interconnection costs.

[DBEDT] "Feed-in-Tariff" or "FIT" means a Commission-approved utility tariff providing standardized and published purchased power rates, including terms and conditions, used by the utility to acquire or purchase renewable energy from third-party renewable energy developers or producers.

[CTYS] "Feed-in-Tariff" or "FIT" means a set of standardized terms and conditions, including published purchased power rates, which a utility shall pay for each type of renewable energy.

[HECO Cos] "Full cost" means the total cost of a program, system, or capability, including research and development costs, capital investment costs, and operating and maintenance costs.

Comment [Leo Asunc13]: DBEDT and KIUC retain definition of "External costs"

Comment [LA14]: KIUC retains current definition of "Full cost"

[DBEDT] "Full cost" means the total cost of a program, system, technology, or capability resource, including research and development costs, capital investment costs, operating and maintenance costs, and taxes.

[HECO Cos] "Hawaii Revised Statutes" or "HRS" means current laws governing the State of Hawaii.

[HECO Cos] "Hawaii Clean Energy Initiative" or "HCEI" means the Memorandum of Understanding between the Governor of the State of Hawaii and the U.S. Department of Energy signed in January 2008, having the goal to decrease energy demand and accelerate use of renewable, indigenous energy resources in Hawaii in residential, building, industrial, utility, and transportation end-use sectors, so that efficiency and renewable energy resources will be sufficient to meet 70% of Hawaii's energy demand by 2030.

[KIUC] "Initiatives" means principles, programs or practices set forth by the utility, administrative action, regulation or public common interest in furtherance of specific energy objectives.

[CTYS] "Integrated Resource Plan" or "IRP" is a plan governed by this framework which provides mandatory guidelines for the utilities for meeting the utility's forecasted load over time with supply-side and demand-side resources consistent with clean energy objectives.

[HECO Cos] "Investment costs" means the one-time costs beyond the development phase to introduce a new system, program, or capability into use. It includes capital investment costs, initial equipment acquisition costs, and initial education and training costs.

[DBEDT] "Investment costs" means the one-time costs beyond the development phase to introduce a new system, program, technology, or capability resource into use. It includes capital investment costs, initial equipment acquisition costs, and initial education and training costs.

[HECO Cos] "Life cycle costs" means the total cost impact over the life of the program. Life cycle costs include research and development cost, investment cost (the one-time cost of instituting the program), and operating and maintenance (O&M) cost.

[DBEDT] "Life cycle costs" means the total cost impact over the life of the program. Life cycle costs include research and development cost, investment cost (the one-time cost of

Comment [Leo Asunc15]: Counties propose same definition for "Hawaii Revised Statutes"

Comment [LA16]: Marriotts proposed deletion of "Hawaii Clean Energy Initiative" definition

Comment [Leo Asunc17]: Counties and KIUC retain current definition of "Investment costs"

Comment [Leo Asunc18]: Counties and KIUC retain current definition of "Life cycle costs" instituting the program), and operating and maintenance (O&M) cost, including taxes and depreciation.

[HECO Cos] "Locational Value Map" or "LVM" means geographic areas of distribution system growth within the next 3-5 years where distributed resources and energy efficiency could be beneficial within the existing transmission and distribution system limits.

Comment [Leo Asunc19]: DBEDT proposed same definition for "Locational Value Map"

[MARRIOTTS] "Locational Value Map" or "LVM" means geographic areas of distribution system growth within the next 3-5 years where distributed resources and energy efficiency could be beneficial within the existing transmission and distribution system limits. However, proposed distributed resource and energy efficiency projects that are not within any geographic area so identified shall not be evaluated differently or subject to any different standards than such projects within those areas.

[HECO Cos] "Net Energy Metering" or "NEM" means measuring the difference between the electricity supplied through the electric grid and the electricity generated by an eligible customer-generator and fed back to the electric grid over a monthly billing period as defined in HRS ch. 269, part VI, section 269-101.

Comment [Leo Asunc20]: DBEDT proposed same definition for "Net Energy Metering"

[CTYS] "Net Energy Metering" or "NEM" is a service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility ('customer-generator") and delivered to the local distribution facilities that is used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.

[HECO Cos] "Objective" means a statement of the end result, product, or condition desired, for the accomplishment of which a course of action is taken.

Comment [LA21]: KIUC retains current definition of "Objective"

[HECO Cos] "Operating and maintenance costs" or "O&M costs" means recurring costs of operating, supporting, and maintaining authorized programs, including costs for labor, fuel, materials and supplies, and other current expenses.

Comment [Leo Asunc22]: Counties and KIUC retain current definition of "Operating and maintenance costs"

[HECO Cos] "Participant impact" means the impact on participants in a demand-side management program in terms of the costs borne and the direct, economic benefits received by the participants.

Comment [LA23]: KIUC retains current definition of "Participant impact"

[DBEDT] "Objective" means a statement of the end result, product, or condition desired, for the accomplishment of which a course of action is taken.

Comment [Leo Asunc24]: DBEDT and Counties retain current definition of "Objective"

Comment [Leo Asunc25]: DBEDT

[DBEDT] "Operating and maintenance costs" or "O&M costs" means recurring costs of operating, supporting, and maintaining authorized programs, including costs for labor, fuel, purchased power, materials and supplies and other current recurring expenses.

[DBEDT] "Participant impact" means the impact on participants in a demand-side management program in terms of the costs borne and the direct, economic benefits received by the participants.

and Counties retain current definition of "Participant impact"

[KIUC] "Plan" or "integrated resource plan" means the integrated resource plan resulting from this framework, in which one component is the action plan.

[DBEDT] "Planning Objectives" means the desired outcome to be accomplished by the utility resource plans or action plans.

[CTYS] "Planning objectives" are desired outcomes to be attained by actions by the utility and Public Benefits Fee Administrator.

[HECO Cos] "Program" means a combination of resources and/or activities designed to achieve an objective or objectives $\underline{\text{in}}$ the CESP scenarios and/or CESP Action Plan.

[DBEDT] "Program" means a project, or a resource, or an activity, or a policy, or a strategy, or a combination or suite of projects, activities, policies, and/or strategies resources and activities designed to achieve an objective or objectives in a scenario or action plan or resource plan.

[CTYS] <u>"Program"</u> means a combination of projects, resources and <u>for activities designed to achieve an objective or objectives.</u> in a strategy, scenario and/or the Action Plan.

[KIUC] "Program" means a resource and activity, or combination
of resources and activities, designed to achieve an objective
or objectives.

[HECO Cos] "Program size" means the magnitude of a program, such as the number of persons serviced by the program, the amount of a commodity, the time delays, the volume of service in relation to population or area, etc.

[HECO Cos] "Program size indicator" means a measure to indicate the magnitude of a program.

[HECO Cos] "Public Benefit Fee Administrator" or "PBF Administrator" means the third-party administrator of energy efficiency demand-side management programs as defined in HRS ch. 269, part VII, section 269-122.

[HECO Cos] "Ratepayer impact" means the impact on ratepayer in terms of the utility rates that ratepayers must pay.

[DBEDT] "Ratepayer impact" means the impact on ratepayer in terms of the utility rates that ratepayers must pay.

[HECO Cos] "Renewable Energy Infrastructure Program" or "REIP" means a mechanism designed to timely recover costs incurred by the electric utility for the development of and investment in renewable energy infrastructure projects in order to facilitate third-party development of renewable energy resources and maintain current renewable energy resources. The REIP includes the Clean Energy Infrastructure Surcharge included in the Energy Agreement.

[HECO Cos] "Renewable Energy Zones" or "REZ" means identification of areas that contain significant renewable energy potential.

[MARRIOTTS] "Renewable Energy Zones" or "REZ" means identification of areas that contain significant renewable energy potential. However, proposed renewable energy projects that are not within any geographic area so identified shall not be evaluated differently or subject to any different standards than such projects within those areas.

[HECO Cos] "Renewable Portfolio Standards" or "RPS" means the current law governing the State of Hawaii as defined in HRS ch. 269, part V, as modified by Act 155 (2009).

[HECO Cos] "Request for Proposal" or "RFP" means a written request for proposal issued by the electric utility to solicit bids from interested third-parties, and where applicable from the utility or its affiliate, to supply a future generation resource of a block of generation resources to the utility pursuant to the competitive bidding process.

[MARRIOTTS] "Request for Proposal" or "RFP" means a written request for proposal issued by the electric utility to solicit bids from interested third-parties, and where applicable from

Comment [LA26]: KIUC retains current definitions of "program size" and "Program size indicator"

Comment [Leo Asunc27]: DBEDT and Counties also proposes to delete "Program size" and "Program size indicator"

Comment [Leo Asunc28]: DBEDT and Counties proposed same definition for "Public Benefit Fee Administrator"

Comment [Leo Asunc29]: DBEDT and Counties retains current definition of "Ratepayer impact"

Comment [LA30]: Marriotts propose deletion of "REIP" definition

Comment [Leo Asunc31]: Counties propose similar definition for "Renewable Portfolio Standards" the utility or its affiliate, to supply resources or services to the utility pursuant to the competitive bidding process.

Deleted: a future generation resource of a block of generation

[CTYS] "Request for Proposals" or "RFP" means a written request for proposals issued by an electric utility or other entity to solicit bids from interested parties for provision of supply-side or demand-side resources or services to a utility pursuant to an applicable competitive bidding process.

[HECO Cos] "Research and development costs" means costs associated with the development of a new system, program, or capability to the point where it is ready for introduction into operational use. It includes the costs of prototypes and the testing of the prototypes. It includes the costs of research, planning, and testing and evaluation.

Comment [Leo Asunc32]: Counties retain current definition for "Research and development costs"

[DBEDT] "Research and development costs" means costs associated with the development of a new system, program, technology or capability resource to the point where it is ready for introduction into operational use. It includes the costs of prototypes and the testing of the prototypes. It includes the costs of research, planning, and testing and evaluation.

[KIUC] "Resource" means a facility, equipment, technology, measure or action that will contribute to energy availability and deliverability.

[CTYS] "Resource option" is a program, generation unit, tariff provision, or any other measure (collectively "measures") that would contribute to meeting energy needs or attainment of planning objectives. Resource options would include measures that could be implemented by the utility, the public benefit fee administrator or the Commission as well as those measures anticipated to be implemented by other entities (such as State of Hawai'i programmatic governmental agency efficiency measures).

[HECO Cos] "Scenarios" means a range of possible futures reflecting possible energy-related policy choices and risks facing the utility and its customers.

[DBEDT] "Scenario" is a probable future circumstance or set of probable future circumstances that are external to and are beyond the utility's control, and which could have significant impact on the utility's resource planning for meeting future electricity needs and demand.

[CTYS] "Scenario" is a distinctive set of possible, plausible circumstances that would have a major effect on resource planning decisions. Scenarios would be explicitly identified in the planning process in order to (a) provide an appropriate breadth to the scope of plausible analysis assumptions utilizing stakeholder participation, (b) frame meaningful planning objectives and measures of attainment and (c) test the "robustness" of candidate strategies with respect to a range of possible future circumstances. Scenarios could be formulated based on possible circumstances including those that are outside the control of the utilities and Commission and those that based on major "game changing" resource strategies (such as an inter-island cable system).

[KIUC] "Scenario" means an event, factor, condition or circumstance for which the outcome: (1) is uncertain, (2) is beyond the reasonable control of the utility, (3) could have a significant impact on the utility's planning depending on the range of plausible futures, and (4) should as a result be specifically identified for consideration by the utility of the range of plausible futures as part of its planning and the development of its action plan.

[MARRIOTTS] "Scenario" means a range of possible futures reflecting possible energy resources, including, but not limited to, energy efficiency programs, renewable energy resources mix, delivery infrastructure requirements, energyrelated policy choices, and risks facing a utility and its customers. Scenarios would be explicitly identified in the planning process in order to (a) provide an appropriate breadth to the scope of plausible analysis assumptions utilizing stakeholder participation, (b) frame meaningful planning objectives and measures of attainment and (c) test the "robustness" of candidate strategies with respect to a range of possible future circumstances. Scenarios could be formulated based on possible circumstances including those that are outside the control of the utilities and Commission and those that based on major "game changing" resource strategies (such as an inter-island cable system).

[DBEDT] "Scenario Planning" is a tool or process for learning and understanding the nature and impact of the most uncertain and important driving forces in the future energy environment that could and would affect the utility's obligation of meeting and supplying the consumers' future energy needs and requirements.

[HECO Cos] "Societal cost" means the total direct and indirect costs to society as a whole. Society includes the utility and, in a demand-side management program, the participants.

[DBEDT] "Societal cost" means the total direct and indirect costs to society as a whole. "Society" includes the utility and, in a demand-side management program, the participants.

[HECO Cos] "Societal cost-benefit assessment" means an assessment of the costs and benefits to society as a whole.

[DBEDT] "Societal cost-benefit assessment" means an assessment of the costs and benefits to society as a whole.

[KIUC] "Statute" means a provision of the then-current Hawaii Revised Statutes, the body of law governing the State of Hawaii, as may be amended or superceded from time to time.

[CTYS] "Strategy" is a set of perspective resources and actions that are designed to meet the planning objectives. A strategy is similar to what the HECO Companies have referred to as "candidate plans" in the IRP applications filed under the existing IRP Framework except that a strategy could also include appropriate contingency planning, parallel planning measures to address future uncertainties. In the planning process each strategy would be assessed with respect to the various identified scenarios. An action plan would be identified to implement a preferred strategy and/or to maintain flexibility to implement more than one possible preferred strategy or one or more contingency strategies.

[HECO Cos] "Supply-side programs" means programs designed to supply power. It includes renewable energy.

[DBEDT] "Supply-side programs" means programs, resources, or technologies designed to supply, generate or produce power. It includes renewable energy.

[CTYS] "Supply-side programs" means programs designed to supply power. It includes either to the utility grid or to a particular customer or entity, including, but not limited to, renewable energy, CHP, and independent power producers.

[KIUC] "Supply-side programs" means programs designed to increase the availability and supply of energy, including renewable energy.

[HECO Cos] "Total resource cost" means the total cost composed of the utility costs and the costs by participants in the

Comment [Leo Asunc33]: DBEDT, Counties, and KIUC retain current definition of "Societal cost"

Comment [Leo Asunc34]: DBEDT, Counties, and KIUC retain current definition of "Societal cost-benefit assessment"

Comment [LA35]: Marriotts proposed similar definition for "Supply-side programs"

demand-side management program, including both the utility and participants' costs. programs.

[MARRIOTTS] "Total resource cost" means the total cost composed of the utility costs and the costs by participants in the demand-side management programs. Offsetting benefits must be quantified and accounted for as a credit against total costs.

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[DBEDT] "Total resource cost" means the total cost of a demand-side management program, including both the utility and participants' costs.

Comment [Leo Asunc36]: DBEDT, Counties, and KIUC retain definition of "Total resource cost"

[DBEDT] "Utility" or "Public Utility" means the electric and utility gas companies providing electric or gas utility service in the State of Hawaii, as defined in Section 269-1, HRS.

[CTYS] "Utility" or "Public Utility" an organization that maintains the infrastructure for a public service (often also providing a service using that infrastructure). In the case of electrical service, the organization can be privately-owned, such as Hawaiian Electric Company, Inc., the Hawaii Electric Light Company, Inc., the Maui Electric Company, Ltd., or publicly-owned such as a municipal, or member-owned such as a cooperative, as in the case for Kauai Island Utility Cooperative. Other public utilities can provide natural gas (or as in the case of The Gas Company, propane and synthetic gas), water or sewage services.

[HECO Cos] "Utility costs" means the cost to the utility
(including ratepayers), excluding costs incurred by
participants in a demand-side management program.

Comment [Leo Asunc37]: Counties propose same definition for "Utility costs"

[DBEDT] "Utility cost" means the cost to the utility (including ratepayers), excluding costs incurred by participants in a demand-side management program or energy efficiency programs.

[HECO Cos] "Utility cost-benefit assessment" means an assessment of the costs and benefits to the utility.

[DBEDT] "Utility cost-benefit assessment" means an assessment of the costs and benefits to the utility.

Comment [Leo Asunc38]: DBEDT, Counties, and KIUC retain definition of "Utility cost-benefit assessment"

II. Introduction

[HECO Cos]

A. Goal of Integrated Resource Clean Energy Scenario Planning

The goal of integrated resource planning is the identification of the resources or the mix of resources for meeting near and long term consumer energy needs in an efficient and reliable manner at the lowest reasonable cost.

The goal of Clean Energy Scenario Planning ("CESP") is to develop CESP scenarios that will provide high level guidance on a long term (10-20 years) direction, which will then be utilized to develop a CESP Action Plan for near term initiatives (5 years), balancing how the utility will meet clean energy objectives, customers' expected energy needs, and protecting system reliability at reasonable costs under various scenarios.

[DBEDT]

The goal of Clean Energy Scenario Planning (CESP) is the identification of the utility's action plan or plans including generation resources and delivery infrastructure requirements for meeting Hawaii's future energy needs and requirements for energy self-sufficiency and security in an integrated, efficient, reliable, and cost-effective manner under a range of scenarios of energy futures.

[CTYS]

A. Goal of Integrated Resource Planning

The goal of integrated resource planning is the identification of the resources or the mix of resources for meeting near and long term consumer energy needs in an efficient and reliable manner at the lowest reasonable cost to employ a comprehensive and flexible planning process to develop and implement integrated resource plans which shall govern utility acquisition and utilization of all capital projects, purchased power, and demand-side management toward achieving and exceeding Clean Energy Objectives ("CE Objectives") in an efficient, economical, and prudent manner that promotes

Hawai'i as a leader in the adoption and use of clean energy and facilitates Hawai'i's swift transition to a clean energy future.

[KIUC]

A. Goal of Integrated Resource Planning

The goal of integrated resource planning is the identification of the resources or the mix of resources for meeting near and long term consumer energy needs in an efficient and reliable manner at the lowest reasonable cost under the circumstances and in a manner that reasonably furthers the objectives set forth in Section IV.B of this framework.

[HECO Cos]

- B. Governing Principles (Statements of Policy)
 - 1. The development of integrated resource plans is the CESP scenarios and the CESP Action Plan are the responsibility of each utility.
 - 2. Integrated resource plans CESP scenarios and the CESP Action Plan shall comport with state and county environmental, health, and safety laws and formally adopted state and county plans.

[MARRIOTTS]

2. CESP scenarios and the CESP Action Plan shall comport with state and county environmental, health, and safety laws and any applicable rules, regulations and/or orders, and formally adopted state and county plans.

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- 3. Integrated resource plans CESP scenarios and the CESP Action Plan shall be developed upon consideration and analyses of the costs, effectiveness, and benefits, and risks of all appropriate, available, and feasible supply-side and demand-side options that meet Hawaii's Renewable Portfolio Standard Law, as defined in HRS ch. 269, part V, section 269-91 most recently modified by Act 155.
- 4. Integrated resource plans CESP scenarios and the CESP Action Plan shall give consideration to the plans' impacts upon the utility's consumers, the environment, culture, community lifestyles, the State's economy, and society.
- 5. Integrated resource plans CESP scenarios and the CESP Action Plan shall take into consideration the utility's financial integrity, size, and physical capability the need to preserve a stable electric grid and financially sound electric utility as vital components or our renewable energy future.
- 6. Integrated resource planning Clean energy scenario planning shall be an open public process. Opportunities shall be provided for participation by the public and governmental agencies in the development and in commission

- review of <u>integrated resource plans</u> the CESP scenarios and CESP Action Plan.
- 7. The utility is entitled to recover all appropriate and reasonable integrated resource clean energy scenario planning and implementation costs.— In addition, existing disincentives should be removed and, as appropriate, incentives should be established to encourage and reward aggressive utility pursuit of demand-side management programs. Incentive mechanisms should be structured so that investments in suitable and effective demand-side management programs are at least as attractive to the utility as investments in supply-side options.

[MARRIOTTS]

- 7. The utility is entitled to recover all appropriate and reasonable clean energy scenario planning and implementation costs as determined by the Public Utilities Commission of the State of Hawaii after an appropriate filing and hearing procedures.
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- 8. The clean energy scenario planning process shall be focused on planning scenario analyses that provide flexibility across a wide range of potential futures and uncertainties that meet Hawaii's Renewable Portfolio Standard Law, as defined in HRS ch. 269, part V, section 269-91 most recently modified by Act 155.

[MARRIOTTS]

9. The CESP scenarios and CESP Action Plans shall encourage, to the maximum extent possible, the increased use of distributed generation, and combined heat and power ("CHP") projects in particular, in meeting future energy needs.

[DBEDT]

- B. Governing Principles
 - 1. The development of integrated resource CESP action plans to meet future energy needs is the responsibility of each utility and requires public input, review and approval by the Commission.

- 2. Integrated resource CESP action plans shall comport with federal, state and county environmental, health, and safety laws and as well as formally adopted state and county plans.
- 3. The CESP scenarios shall be developed upon consideration of providing reasonable and probable futures that would help define, identify, and mitigate the risks and uncertainties in developing a program or strategy in meeting the consumers' future energy needs.
- 3.4. Integrated resource CESP action plans shall be developed upon consideration and analyses of the short-term and long-term costs, effectiveness, and benefits of all appropriate, available, and feasible supply-side resources and demand-side options, including demand response or load management programs and rate design.
- 5. The CESP action plans shall be developed upon consideration and analyses of the associated transmission and delivery infrastructure requirements and costs, including operational changes, grid upgrades, system capacity additions or replacements.
- infrastructure plans shall be developed upon consideration of adoption of appropriate, applicable and cost-effective technological advances such as smart grid, energy storage, and any other technological grid improvements, as well as changes in the utility's operating procedures.
- 4.7. Integrated resource CESP action plans shall give consideration to the plans' impacts upon the utility's consumers, service quality and reliability, the environment, culture, community lifestyles, the State's energy security, energy independence, economy, and society.
- 5.8. Integrated resource CESP action plans shall take into consideration the utility's financial integrity, size, and physical capability.
- 6.9. Integrated resource CESP planning shall be an open public process. Opportunities shall be provided

that promotes and provides opportunities for participation by the public and governmental agencies in the development and in commission review of integrated resource CESP action plans.

- 10. CESP action plans shall prioritize resource acquisition and program implementation such that energy efficiency programs including demand response and rate design, and renewable energy resources are first optimized before consideration is given to fossil-based resources.
- 11. CESP action plans shall promote and encourage the increased use of distributed generation or dispersed generation over fossil-based central generation stations.
- 7.12. The utility is entitled to recover all prudently incurred and reasonable integrated resource CESP planning and implementation costs. In addition, existing disincentives should be removed and, as appropriate incentives should be established to encourage and reward aggressive utility pursuit of demand-side management programs. Incentive mechanisms should be structured so that investments in suitable and effective demand-side management programs are at least as attractive to the utility as investments in supply-side options.

[CTYS]

- B. Governing Principles (Statements of Policy)
 - 1. The development of integrated resource plans is are the responsibility of each utility, in consultation with advisory group(s), non-utility stakeholders, and the public, and with the oversight and approval of the commission.
 - Integrated resource plans shall comport with <u>federal</u>, <u>state</u>, and county environmental, health, and safety laws and formally adopted state and county plans.
 - 3. Integrated resource plans shall be developed upon consideration and analyses of the short- and long-term costs, effectiveness, and benefits of, and risks associated with all appropriate, available, and feasible supply-side and demand-side options.

- <u>distributed generation and energy management</u> resources.
- 4. Integrated resource plans shall give consideration to the plans' impacts upon the utility's consumers, the environment, culture, community lifestyles, the State's economy, and society consider technological advances in the utility's transmission and distribution infrastructure plans such as advanced data acquisition and system controls (i.e., smart grid), energy storage, or changes in the utility's operating procedure.
- impact on utility customers, environmental and cultural resources, the local economy, and the broader society.
- 5.6. Integrated resource plans shall take into consideration the a utility's financial integrity, size, and physical capability.
- 6.7. Integrated resource planning shall be an open public process. Opportunities shall be provided for participation by the public and governmental agencies in the development and in commission review of integrated resource plans. Which shall maximize public involvement to enable mutual collaboration, communication, and feedback between the utility and non-utility stakeholders and the public and create broad-based awareness and support for achieving and exceeding CE Objectives.
- 7.8. The A utility is and intervenors are entitled to recover all appropriate and reasonable integrated resource planning and implementation costs. In addition, existing disincentives should be removed and, as appropriate, incentives should be established to encourage and reward aggressive utility pursuit of demand-side management programs. Incentive mechanisms should be structured so that investments in suitable and effective demand-side management programs are at least as attractive to the utility as investments in supply-side options. costs as approved by the Commission.
- 9. Integrated resource plans shall prioritize and encourage the increased use of distributed generation over centralized fossil-based generation.

- 10. Integrated resource plans shall seek to achieve and exceed CE Objectives, including the economic and environmental benefits associated with achievement of energy independence.
- 11. Integrated resource plans shall take into consideration the need to prevent or minimize power outages during and after disaster situations.
- 12. Integrated resource planning shall be based upon and incorporate to the extent reasonable the successful elements of the planning process utilized by utilities and Independent System Operators working in conjunction with various stakeholders in other jurisdictions.
- 13. Integrated resource plans shall prioritize resource acquisition and integration such that demand-side management programs and renewable energy resources are first optimized before consideration is given to fossil-based resources.
- 14. No customer or third party shall be required to disclose confidential information during the collection of data for integrated resource planning-related proposals or programs.
- 15. Integrated resource plans shall address all technical barriers to achieving CE Objectives.

- B. Governing Principles (Statements of Policy)
 - 1. The development of integrated resource plans is the responsibility of each utility.
 - 2. Integrated resource plans shall comport with applicable state and county environmental, health, and safety laws and (including any applicable renewable portfolio standards); formally adopted state and county plans—; and other applicable administrative and regulatory requirements.
 - 3. Integrated resource plans shall be developed upon consideration and analyses of any established energy policies and initiatives in effect at that time.
 - 4. Integrated resource plans shall be developed upon consideration and analyses of the costs, effectiveness, and benefits of all appropriate, available, and feasible supply-side and demand-side options.
 - 5. Integrated resource plans shall give consideration to the plan's impacts upon the utility's consumers, the environment, culture, community lifestyles, the State's economy, and society.
 - 6. Integrated resource plans shall take into consideration the utility's financial integrity, available sources of capital, ownership structure, size, and physical capability and objectives for the adequacy and reliability of energy services.
 - 7. Integrated resource planning shall be an open public process. Opportunities shall be provided for participation by the public and governmental agencies in the development and in commission review of integrated resource plans.
 - 8. The utility is entitled to recover all appropriate and reasonable integrated resource planning and

implementation costs. In addition, existing disincentives should be removed and, as appropriate, incentives should be established to encourage and reward aggressive utility pursuit of demand-side management programs. Incentive mechanisms should be structured so that investments in suitable and effective demand-side management programs are at least as attractive to the utility as investments in supply-side options.

9. Integrated resource planning shall consider identified scenarios and its range of plausible futures in developing the utility's action plan.

C. Utility's Responsibility

- 1. Each utility is responsible for developing a plan or plans reasonable number of CESP scenarios for meeting the energy needs of its customers to reflect a range of possible energy-related policy choices and risks facing the State, its utilities, and citizens. The CESP scenarios will be evaluated to help formulate the CESP Action Plan, covering a 5-year implementation period.
- 2. The utility shall prepare and submit to the commission for a CESP filing which will include the CESP scenarios and CESP Action Plan and seek commission approval at the time or times specified in this framework the utility's integrated resource plan CESP Action Plan and program implementation schedule.

[MARRIOTTS]

- 2. The utility shall prepare and submit to the Commission for Commission approval at the time or times specified in this framework the utility's CESP Action Plan. The utility shall post on its website, on the same date as such submission is filed with the Commission, a copy of its CESP Action Plan in downloadable, PDF format under the heading "CESP And Related Filings And Orders." The utility shall simultaneously post the docket number assigned to the submission by the Commission.
- 3. The utility shall execute the commission approved plan CESP Action Plan in accordance with the program implementation schedule CESP Framework. As part of this execution, the utility shall file for Commission review and approval individual applications for programs or elements of the CESP Action Plan that requires specific Commission approval.
- 4. The utility shall annually examine and evaluate its achievements in attaining its objectives. In its development of the CESP scenarios and CESP Action Plan, the utility shall comply with State initiatives and Commission proceedings that consider

such issues, but not limited to: 1) Competitive
Bidding for future generation; 2) State Renewable
Energy Portfolio Standards; 3) Energy Efficiency; 4)
Renewable Energy Infrastructure Programs; 5)
Distributed Generation; 6) Net Energy Metering; 7)
Feed-in Tariffs; 8) Advanced Metering Infrastructure
("AMI"); 9) Energy Efficiency Portfolio Standards
("EEPS"); and 10) Greenhouse Gas ("GHG")
initiatives.

[MARRIOTTS]

4. In its development of the CESP scenarios and CESP Action Plan, the utility shall comply with State initiatives and Commission proceedings that consider such issues, but not limited to: 1) Competitive Bidding for future generation; 2) State Renewable Energy Portfolio Standards; 3) Energy Efficiency; 4) Renewable Energy Infrastructure Programs; 5) Distributed Generation, including Combined Heat and Power ("CHP"); 6) Net Energy Metering; 7) Feed-in Tariffs; 8) Advanced Metering Infrastructure ("AMI"); 9) Energy Efficiency Portfolio Standards ("EEPS"); and 10) Greenhouse Gas "(GHG") initiatives.

[DBEDT]

C. Utility's Responsibility

- 1. Each utility is responsible for developing a CESP
 action plan or plans for meeting the future energy needs of its customers and at the same time achieve-or-surpass the statutory requirements for achieving the state goals of energy independence and security.
- 2. The utility shall prepare and submit to the commission for commission approval at the time or times specified in this framework the utility's integrated resource <u>CESP</u> action plan and program implementation schedule including the scenario or range of scenarios and supporting analyses.
- 3. The utility shall execute the commission approved CESP action plan in accordance with the program implementation schedule or plans. The utility's execution of the CESP action plan or plans shall include the filing of applications for Commission approval of the programs or resource acquisitions

- included in the CESP action plan or plans in accordance with the commission's rules.
- 4. The utility shall annually examine and evaluate its achievements in attaining its the CESP planning objectives as identified in this CESP Framework.
- 5. The utility is responsible for ensuring that the planning process and resulting CESP action plans are compliant with the general principles and requirements of the framework.

[CTYS]

- C. Utility-'s Responsibility
 - 1. Each utility is responsible for developing and maintaining a plan or plans for meeting the energy needs of its customers.
 - 2. The utility shall prepare and submit to the commission for commission approval review at the time or times specified in this framework by the commission the utility is integrated resource plan and program implementation schedule action plan.
 - 3. The utility shall execute maintain at all times a current and up-to-date resource analysis capability and respond to requests for information and analysis by the commission approved plan in accordance with the program implementation schedule.
 - 4. The utility shall annually examine and evaluate its achievements in attaining its objectives. The utility shall maintain and make publicly available at all times a current and up-to-date action plan.
 - The utility shall maintain and make publically available at all times current and up-to-date information regarding its avoided costs, renewable energy and capacity wholesale purchase tariffs and all current, pending or planned resource acquisition tariffs, programs, requests for proposals or bid offerings.

[KIUC]

C. Utility's Responsibility

- 1. Each utility is responsible for developing a plan or plans for meeting the energy needs of its customers.
- 2. The utility shall prepare and submit to the commission for commission approval the utility's integrated resource plan at the time or times specified in this framework the utility's integrated resource plan and program implementation schedule. This integrated resource plan shall include a proposed action plan as described in this framework for commission approval.
- 3. The utility shall execute the commission approved plan in accordance with action plan once approved by the program implementation schedule commission.
- 4. The utility shall annually examine and evaluate its achievements in attaining its objectives.

- D. Commission's Responsibility
 - 1. The commission's responsibility, in general, is to determine whether the utility's plan CESP scenarios and CESP Action Plan represents a reasonable course for meeting the energy needs of the utility's customers,—and is in the public interest, and is consistent with the goals and objectives of integrated resource planning—this Clean Energy Scenario Planning Framework, and provides strategic guidance for future utility planning to meet Hawaii's Renewable Portfolio Standard Law, as defined in HRS ch. 269, part V, section 269-91 most recently modified by Act 155.
 - 2. Specifically, the The commission will review and approve in whole or in part the utility's integrated resource plan its program implementation schedule, and its evaluations, and generally monitor the utility's implementation of its plan. Upon review, the commission may approve, reject, approve in part and reject in part, or require modifications of the utility's integrated resource plan and program implementation schedule CESP Action Plan as a reasonable course for meeting the energy needs of the utility's customers, is in the public interest, and is consistent with this Clean Energy Scenario Planning Framework. If the Commission rejects all or parts of the CESP Action Plan filed, there should an explanation for non-approval and the implications of that non-approval on the utility's asset investment and strategic choices for the upcoming three-year period.

[MARRIOTTS]

The Commission will review and approve in whole or in part the utility's CESP as a reasonable course for meeting the energy needs of the utility's customers, will determine whether the utility's CESP is in the public interest, and is consistent with this Clean Energy Scenario Planning Framework. The Commission will review the utility's CESP and issue an order approving or denying the CESP Action Plan within six (6) months of the filing. If the Commission does not issue a decision within the six

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month period, the CESP Action Plan is automatically deemed "approved". Approval should elevate the status of the preferred resources identified in the CESP Plan, programs Action including DSM administered by the Public Benefit third-party Administrator, Independent Producer ("IPP") projects, and utility resources, to give them a presumption of need in any subsequent siting proceeding. . If the Commission rejects all or parts of the CESP filed, there should be an explanation for non-approval and the implications of that non-approval on the utility's asset investment and strategic choices for the upcoming three-year period.

3. The parties shall cooperate in expediting commission hearings on the utility's integrated resource plan and program implementation schedule. To the extent possible, the commission will hear the utility's application for approval of its integrated resource plan within six months of the plan's filing, and the commission will render its decision shortly thereafter. The Commission acknowledges that the purpose of the CESP process is to provide strategic guidance for future utility planning to achieve Hawaii's clean energy future, and that its review and any approval given to the CESP Action Plan will apply only to high level Thus, the utility will file for planning issues. Commission review and approval individual applications for programs or elements of the CESP Action Plan that requires specific Commission The utility may file such applications approval. the Commission issues a final before decision approving the CESP Action Plan and the Commission may review these individual applications programs in parallel with the review of the CESP Action Plan.

[MARRIOTTS]

3. The Commission acknowledges that the purpose of the CESP is to provide strategic guidance for future utility planning to achieve Hawaii's clean energy future, and that its review and any approval given to the CESP will apply only to high level planning issues. Thus, the utility will file for Commission review and approval individual applications for programs or elements of the CESP Action Plan that requires specific Commission approval. The utility may file such applications before the Commission

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- Timely Commission review, approval, consent, or described in other action this Framework essential to the efficient and effective execution of this clean energy scenario planning process. Accordingly, to expedite Commission action in this clean energy scenario planning process, whenever Commission review, approval, consent, or action is required under this Framework, the Commission may do so in an informal expedited process. The Commission hereby authorizes its Chairman, or his designee (which designee, may be another Commissioner, a member the Commission staff, Commission hearings officer, or a Commission hired consultant), in consultation with other Commissioners, Commission staff, and the Independent Observer, to take any such action on behalf of the Commission.
- 5. The Commission will serve as an arbiter of last resort, after the utility, Independent Observer, and Advisory Committee have attempted to resource any dispute or pending issue. The Commission will use an informal expedited process to resolve the dispute within thirty (30) days, as described in Section II.D.4 above. There shall be no right to hearing or appeal from this informal expedited dispute resolution process. The Commission encourages affected parties to seek to work cooperatively to resolve any dispute or pending issue, perhaps with the assistance of an Independent Observer, who may offer to mediate but who has no decision-making authority. The utility and Independent Observer shall conduct informal meetings with the Commission and Consumer Advocate to keep each apprised of issues that arise between or among the parties.

[DBEDT]

- D. Commission's Responsibility
 - 1. The commission's responsibility, in general, is to determine whether the CESP scenarios and the utility's CESP action plan represent a reasonable course of programs and strategies for meeting the future energy needs of the utility's customers, and is and are in the public interest, and consistent with the CESP Framework and the state goals and objectives of integrated resource planning of energy security and energy independence.
 - 2. Specifically, the commission will review the CESP scenarios, the utility's integrated resource plan, its program CESP action plan or plans, including the implementation schedule, and its the supporting analyses and evaluations, and generally monitor the utility's implementation of its CESP action plan. Upon review, the commission may approve, reject, approve in part and reject in part, or require modifications of the utility's integrated resources plan and program implementation schedule. The utility will file the CESP scenarios and CESP action plan with the commission in accordance with the file and suspend provisions of Section 269-16(b), HRS.
 - applications including all supporting analysis for each resource, program, or project in an approved CESP action plan, and shall make every effort to complete its deliberations and issue its decision as expeditiously as possible and before nine months from the date the utility filed its completed application, in accordance with Section 269-16(d), HRS.
 - The parties shall cooperate in expediting commission hearings on the utility's integrated resource plan and program implementation schedule. To the extent possible, the commission will hear the utility's application for approval of its integrated resource plan within six months of the plan's filing, and the commission will render its decision shortly thereafter. The commission shall establish the target goals of the demand-side management and energy efficiency programs referenced in Section 269-121, HRS, to be achieved by the public benefits fee administrator, upon initiation of a docket for each planning cycle.

- D. Commission-'s Responsibility
 - The commission 's responsibility, in general, is to review the utility's plans and planning assumptions and determine whether the utility's plan represents a reasonable course they represent a reasonable set of assumptions for evaluating capital projects, resource acquisition programs, contracts or other utility commitments for meeting the energy needs of the utility's customers and is in the public interest and consistent with the goals and objectives of integrated resource planning.
 - 2. Specifically, the <u>The</u> commission will review the utility integrated resource plan, its program implementation schedule, and its evaluations, and generally monitor the utility is implementation of its plan. Upon review, the commission may approve, reject, approve in part and reject in part, or require modifications of the utility integrated resource plan and program implementation schedule, action plan and planning assumptions.
 - 3. The parties shall cooperate in expediting commission hearings on the utility's commission will require the provision of planning information and analysis by the utility as necessary at any time to provide context and information in any regulatory matters before the commission. The commission will decide at the time it requires any information or analysis the extent to which the integrated resource plan and program implementation schedule. To the extent possible, the commission will hear the utility's application for approval of its integrated resource plan within six months of the plan's filing, and the commission will render its decision shortly thereafter advisory group(s), parties and/or participants will be allowed to provide responses to the commissions request for information and/or comments regarding the utility's response(s).
 - 4. The commission staff (or one or more commissioners) may preside over part of occasional advisory group meetings to invite and obtain comments and positions of advisory group members.
 - 5. The commission may, as it finds necessary, issue orders to provide relief (i.e., require

consideration by the utility of certain circumstances, resources or scenarios) recommended by advisory group members, parties or participants.

[KIUC]

- D. Commission's Responsibility
 - The commission's responsibility, in general, is to determine whether, under the circumstances, the utility's plan represents a reasonable course for meeting the energy needs of the utility's customers and, is in the public interest, and consistent with the goals and objectives of integrated resource planning as set forth in this framework.
 - 2. Specifically, the commission will review the utility's integrated resource plan, its program action plan (which includes an implementation schedule), and its evaluations, and generally monitor the utility's implementation of its action plan. Upon review, the commission may approve, reject, approve in part and reject in part the action plan, or require modifications of the utility's integrated resource plan and program implementation schedule/or action plan, as applicable.
 - 3. The parties shall cooperate in expediting commission hearings on the utility's integrated resource plan and program implementation schedule. action plan. To the extent possible, the commission will hear the utility's application for approval of its integrated resource action plan within six months of the plan's filing, and the commission will render its decision shortly thereafter.

- E. Consumer Advocate's Responsibility
 - The director of commerce and consumer affairs, as the consumer advocate and through the division of consumer advocacy, has the statutory responsibility to represent, protect, and advance the interest of consumers of utility services. The consumer advocate, therefore, has the duty to ensure that the utility's integrated resource plan CESP scenarios and CESP Action Plan promotes the interest of utility consumers.
 - 2. The consumer advocate shall be a party to each utility's integrated resource clean energy scenario planning docket and a member of any and all advisory groups established by the utility in the development of its integrated resource plan CESP scenarios and CESP Action Plan. The consumer advocate shall also participate in all public hearings and other sessions held in furtherance of the utility's efforts in integrated resource clean energy scenario planning.

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- E. Consumer Advocate's Responsibility
 - 1. The director of commerce and consume affairs, as the consumer advocate and through the division of consumer advocacy, has the statutory responsibility to represent, protect, and advance the interest of consumers of utility services. The consumer advocate, therefore, has the duty to ensure that the utility's integrated resource plan promotes the interest of utility consumers shall represent, protect, and advance the interests of all consumers including small businesses in the utility planning process.

The As consumer advocate, the director of commerce and consumer affairs shall be a party to each utility's integrated resource planning docket and have full rights to participate as party in interest in all CESP-related proceedings to ensure that the utility's action plans promote the interest of utility consumers. As consumer advocate, the

director of commerce and consumer affairs will be a de facto member of any and all technical working groups or advisory groups established by the utility in the development of its integrated resource CESP scenarios and CESP action plan as required by the framework. The consumer advocate shall also participate in all public hearing and other sessions held in furtherance of the utility's efforts in integrated resource planning.

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- E. Consumer Advocate's Responsibility
 - The director of commerce and consume affairs, as the consumer advocate and through the division of consumer advocacy, has the statutory responsibility to represent, protect, and advance the interest of consumers of utility services. The consumer advocate, therefore, has the duty to ensure that the utility's integrated resource plan promotes the interest of utility consumers.
 - 2. The consumer advocate shall be a party to each utility integrated resource planning docket and a member of any and all advisory groups established by the utility in the development of its integrated resource plan. The consumer advocate shall also participate in all public hearing hearings and other sessions held in furtherance of the utility sefforts in integrated resource planning.

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- E. Consumer Advocate's Responsibility
 - 1. The director of commerce and consume affairs, as the consumer advocate and through the division of consumer advocacy, has the statutory responsibility to represent, protect, and advance the interests of consumers of utility services. The consumer advocate, therefore, has the duty to ensure that the utility's integrated resource plan promotes the interest of utility consumers.
 - 2. The consumer advocate shall be a party to each utility's integrated resource planning docket and a member of any and all advisory groups established

by the utility in the development of its integrated resource plan. The consumer advocate shall also participate in all public hearing and other sessions held in furtherance of the utility's efforts in integrated resource planning.

- F. Public Benefit Fee ("PBF") Administrator's Responsibility
 - 1. The PBF Administrator's responsibility, in general, is to administer all energy efficiency programs in accordance with Public Benefits Fee HRS ch. 269, part VII and Docket No. 2007-0323.
 - 2. The PBF Administrator shall be a party to each utility's clean energy scenario planning docket and a member of any and all advisory committees established by the utility in the development of its CESP scenarios and CESP Action Plan. The PBF Administrator shall also participate in all public hearings and other sessions held in furtherance of the utility's efforts in clean energy scenario planning.

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F. Public Benefits Fee Administrator

- 1. The public benefits fee administrator shall be responsible for the identifying, developing, managing, and implementing the demand-side management and energy efficiency programs and services pursuant to Section 269-121 and Section 269-123, HRS.
- 2. The public benefits fee administrator shall be responsible for achieving the goals of the demand-side management and energy efficiency programs and services established by the commission and referenced in Section 269-121, HRS.
- The public benefits fee administrator in collaboration with the utility and the technical working groups shall be responsible for designing and developing demand-side and energy efficiency programs and delivery mechanisms to achieve the commission-established goals and which are included in the utility action plan.
- 4. The public benefits fee administrator shall be responsible for developing all analyses for the demand-side and energy efficiency programs under its purview and shall provide all such analyses to the utility in a timely manner for use in scenario

planning and in developing the utility action plan as well as in filing with the commission as required by the framework.

- The public benefits fee administrator shall be a member of any and all working groups and/or advisory group that the utility may be required to establish in developing the CESP scenarios and CESP action plans as required by the framework.
- The public benefits fee administrator shall be a party in interest in all CESP-related dockets as may be deemed necessary and appropriate by the commission.
- 7. The public benefits fee administrator shall assist and participate in all CESP-related public meetings or public workshops by the utility as required by the framework.

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F. Public Benefit Fee Administrator's Responsibility

- 1. The Public Benefit Fee Administrator (PBFA) is a contractor to the Commission and has a unique role as a provider of ratepayer funded energy services.
- 2. The energy efficiency programs managed by the PBFA serve purposes that are closely integrated with the services provided by the energy utilities.

 Together, the programs managed by the PBFA and the services provided by the energy utilities need to meet energy consumer needs reliably and economically. The PBFA programs serve as important components of utility plans, can serve as alternatives to or means to defer utility capital expenditures, and are relied upon by the utilities to meet energy service requirements. It is therefore necessary that utility planning include consideration of the optimal targeting, design objectives and role of the PBFA energy efficiency programs in the context of utility plans.
- 3. The specific design of the energy efficiency programs managed by the PBFA, however, must reside with the PBFA to the extent that the PBFA is responsible for the efficacy of these programs and

- to the extent specified by contract or otherwise determined by the commission.
- The PBFA should be a participant in the utility planning process and should have a unique role as the primary implementer of a fundamental component of Hawai'i's energy utility resource strategy. The PBFA should provide information to the utility planning process regarding the nature of existing, planned and potentially feasible programs, the expected cost and impacts of these programs as well as any other relevant issues or uncertainties. The utility planning process should evaluate the existing, planned and potentially feasible energy efficiency programs to determine which are the most cost-effective in terms of avoiding short run and long run utility costs, the extent to which these programs can meet utility and State planning objectives and how these programs might best be targeted geographically or temporally.
- 5. The PBFA and the utility shall cooperate interactively to determine an optimal portfolio of programs to be implemented by the PBFA.

- G. Independent Observer's Responsibility
 - 1. The Independent Observer's responsibility, in general, is to monitor the clean energy scenario planning process and report on the progress and results to the Commission.
 - 2. The Independent Observer will have duties and obligations in two areas: Advisory and Monitoring.
 - a. Advisory. The Independent Observer shall:
 - (1) Certify to the Commission that the utility conducted the CESP process in accordance with this Clean Energy Scenario Planning Framework.
 - (2) Advise the utility on its decision-making during the CESP process.
 - (3) Report immediately to the Commission of any deviations from this Clean Energy Scenario Planning Framework.
 - (4) After the utility's CESP process is completed, provide the Commission with:
 - i. An overall assessment of whether the goal of this Clean Energy Scenario
 Planning Framework was achieved; and
 - ii. Recommendations for improving future Clean Energy Scenario Planning processes.
 - (5) Be available to the Commission as a witness if required to evaluate a complaint filed against the utility for non-compliance with this Clean Energy Scenario Planning Framework, or if required in a future rate case if questions of prudence arise.
 - b. Monitoring. The Independent Observer shall:
 - (1) Monitor all steps in the Clean Energy Scenario Planning process.

- (2) Monitor and facilitate communications (and communication protocols) with the Advisory Committee and public.
- results at key points along the planning process (such as at the establishment of key planning assumptions, at the establishment of scenarios to be evaluated, at the development of 20-year resource plans for each scenario and at the end of the process upon the filing of the CESP plan with the Commission) to facilitate focused review at these key points of the planning process and obtain Commission concurrence at each of these key steps.
- 3. The Independent Observer shall have no decisionmaking authority, and no obligation to resolve disputes, but may offer to mediate between disputing parties.
- 4. The Independent Observer shall provide comments and recommendations to the Commission, at the utility's or Commission's request, to assist in resolving disputes or making any required determinations under this Clean Energy Scenario Planning Framework.
- 5. Independent Observer qualifications. The

 Independent Observer shall be qualified for the tasks the observer must perform. Specifically, the Independent Observer shall:
 - a. Be knowledgeable about, or be able rapidly to absorb knowledge about, any unique characteristics and needs of the utility;
 - b. Be knowledgeable about the characteristics and needs of small, non-interconnected island electric grids, and be aware of the unique challenges and operational requirements of such systems;
 - c. Have the necessary experience and familiarity with utility modeling capability, transmission system planning, operational characteristics, and other factors that affect scenario analyses;

- d. Be able to work effectively with the utility, the Commission, and its staff during the CESP process; and
- e. Be able to demonstrate impartiality.
- Selection and contracting. The utility shall: (a) identify qualified candidates for the role of Independent Observer; (b) seek and obtain Commission approval of its final list of qualified candidates; and (c) select an Independent Observer from among the Commission-approved qualified candidates. The utility's contract with the Independent Observer shall be acceptable to the Commission, and provide among other matters, that the Independent Observer: (a) report to the Commission and carry out such tasks as directed by the Commission, including the tasks described in this Clean Energy Scenario Planning Framework; (b) cannot be terminated and payment cannot be withheld without the consent of the Commission; and (c) can be terminated by the Commission without the utility's consent, if the Commission deems it to be in the public interest in the furtherance of the objectives of this Clean Energy Scenario Planning Framework to do so. The utility may recover prudently incurred Independent Observer costs from its customers upon approval of the Commission in a rate case or other appropriate proceeding, and may defer the costs prudently incurred for the Independent Observer (i.e., deferred accounting).

[HECO Cos]

A. Major Steps

There are <u>four three</u> major steps in the <u>integrated</u> resource clean energy scenario planning process: planning, programming, <u>and</u> implementation, and evaluation.

- 1. Planning is that process in which the utility's needs are identified; the utility's objectives are formulated; measures by which effectiveness in attaining objectives are specified; the alternatives by which the objectives may be attained are identified; the full cost, effectiveness, and benefit implications of each alternative are determined; State initiatives, mandates, and Commissions proceedings establish a "starting point" for the development of the CESP scenarios; the assumptions, costs, risks, trends, expected events, and uncertainties are clarified; the cost, effectiveness, and benefit tradeoffs of the alternatives are made; the utility's generation and transmission needs are identified; Locational Value Maps are developed; and resource options are chosen; and program choices subjected to sensitivity scenario analyses to reflect a range of the possible energy-related policy choices and risks facing the utility systems and citizens. The product of this process is the utility's integrated resource plan CESP scenarios. The planning horizon for utility integrated resource plans CESP is 20 years. Unless otherwise ordered by the commission, the 20-year period begins on January 1 following the completion of the plan CESP process.
- 2. Programming is that process by which the utility's long-range resource program plans CESP scenarios are evaluated and programs or elements from one or more scenarios are scheduled for implementation over a five-year period. In this process, a determination is made as to the order in which the selected program options are to be implemented; the phases or steps in which each program is to be implemented; the expected target group and the annual size of the target group or annual level of penetration of demand-side management programs; the expected annual

supply-side capacity additions; the expected annual levels of effectiveness in achieving integrated resource planning objectives; and the identification of the resource procurement method; transmission system additions; and the annual expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of the programs. The result of this process is a program implementation schedule or action plan CESP Action Plan. The schedule CESP Action Plan represents an implementation a strategy or timetable for program implementation.

- 3. Implementation is that process by which the resource program options to be implemented are acquired and instituted in accordance with the utility's program implementation schedule CESP
 Action Plan.
- 4. Evaluation is that process by which the results of the resource program options are measured in light of the utility's objectives. In this process the actual costs, effectiveness, and benefits of the resource options and the attainment of the utility's objectives are measured against those that were projected in the planning and programming stages of the planning cycle.

[MARRIOTTS]

4. Nothing herein shall be construed as permitting a utility to obtain confidential information from an entity or to disclose confidential information provided to it by a entity unless the utility has first obtained written permission from an authorized representative of that entity.

[DBEDT]

III. The Planning Context Method

A. Major Steps

There are four major steps in the integrated resource CESP planning process: planning, programming action plan development, implementation, and evaluation.

1. Planning is that process in which he utility's needs are identified; the utility's objectives are formulated; measures by which effectiveness in

attaining objectives are specified; the alternatives by which the objectives may be attained are identified; the full cost, effectiveness, and benefit implications of each alternative are determined; the assumptions, risks, and uncertainties are clarified; the cost, effectiveness, and benefit tradeoffs of the alternatives are made; the resource options are chosen; and program choices are subjected to sensitivity analyses. The product of this process is the utility's integrated resource plan. The planning horizon for utility integrated resource plans is 20 years. Unless otherwise ordered by the commission, the 20-year period begins on January 1 following the completion of the plan.

- 1. The planning process generally includes but is not limited to the following steps activities:
 - a. Specify the scope of the planning and its time frame.
 - b. Identify and define the strategic or focal issues and decisions to be made.
 - c. Develop a clear definition and understanding of the present situation or situations that will serve as the common departure point for each of the scenarios.
 - d. Identify the long-term and/or large scale forces or events that could push the future in different directions.
 - e. Identify the predetermined elements that are virtually certain to occur and that could be the driving forces for any scenario. These predetermined elements are outside of the utility's control and will play out in any future outlook.
 - f. Identify, define, assess, understand, and quantify where feasible the critical uncertainties or forces that affect the focal issues and decisions to be made.
 - g. Analyze and understand the inter-relationships and interactions between the critical driving forces and/or uncertainties that are most important to the focal issues and decisions to be made.
 - h. Select the critical and related uncertainties
 or driving forces and sort into a scenario
 matrix of logical and plausible futures to
 consider and explore in the utility's resource

- and infrastructure planning for meeting the consumers' future energy needs and requirements.
- i. Develop the required forecasts assumptions.
- j. Develop and analyze the strategy or plan of action for each scenario, including the identification and analysis of the required supply-side and demand-side resources, programs and policies, including the transmission and delivery infra-structure requirements.
- k. Develop cost-benefit analyses of the strategies or plans for each scenario, including the expected results.
- 1. Identify the strategy or plan of action that makes sense across all of the scenarios of the future to include in the utility action plan.
- 2. Programming is that process by which the utility's long-range resource program plans are scheduled for implementation over a five-year period. In this process, a determination is made as to the order in which the selected program options are to be implemented; the phases or steps in which each program is to be implemented; the expected target group and the annual size of the target group or annual level of penetration of demand-side management programs; the expected annual supply-side capacity additions; the expected annual levels of effectiveness in achieving integrated resource planning objectives; and the annual expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of the programs. The result of this process is a program implementation schedule or action plan. The schedule represents an implementation strategy or timetable for program implementation.
- 2. Action Plan Development generally includes but is not limited to the following steps and/or activities:
 - a. Develop a detailed cost-benefit analysis of each strategy, resource, or program included in the action plan.
 - b. Determine the order in which each selected strategy, resource, or program is implemented consistent with the framework's general

- principles, and develop an implementation
 schedule.
- c. Determine the phases or steps in which each strategy, resource, or program is to be implemented where a phase-in implementation approach is reasonable and warranted.
- d. For demand-side programs or strategies, define the expected target group including the expected program results.
- e. Identify the expected and/or required annual supply-side capacity additions by type, consistent with the framework's planning objectives and general principles.
- f. Develop an estimate of the annual utility expenditures by cost type required to implement each strategy, resource or program included in the utility action plan.
- g. Define and develop the method of measuring and evaluating the action plan's achievement of the framework's planning objectives.
- 3. Implementation is that process by which the resource program options to be implemented are acquired and instituted in accordance with the utility's program implementation schedule. utility's action plan is implemented and generally includes but is not limited to the following steps and/or activities:
 - a. Utility filing of the planning scenarios for commission review and approval, including all supporting documentation and analysis as required by the framework, and in accordance with the file and suspend provisions of Section 269-16(b), HRS.
 - b. Utility filing of the action plan for commission review and approval, including all supporting analysis as required by the framework, and in accordance with the file and suspend provisions of Section 269-16(b), HRS.
 - c. Develop a detailed cost-benefit analysis and evaluation measures for each strategy, resource, and program included in the action plan.
 - d. Utility filing of program applications for commission review and approval for each strategy, resource and program included in the action plan, with all supporting data, information, and analysis in accordance with

the commission's rules. The commission shall issue its decision on each program application as expeditiously as possible, and before nine months from the date the utility filed its completed application, in accordance with Section 269-16(d), HRS.

- e. Implementation of the strategy and programs, and the acquisition of resources included in the action plan, in accordance with the action plan implementation schedule as approved by the commission.
- 4. Evaluation is that process by which the results of the resource program options action plan in achieving the framework's planning objectives are measured. In this process the actual costs, effectiveness, and benefits of the resource options each strategy, resource, and program in the action plan and the attainment of the utility's planning objectives are measured against those that were projected in the planning and programming stages of the planning cycle action plan and program applications.

[CTYS]

A. Major Steps

There are four major steps in the integrated resource planning process: planning, programming, implementation, and evaluation.

Planning is that process in which he utility_'s 1. needs are identified; the utility_'s objectives are formulated; measures by which effectiveness in attaining objectives are specified; the alternatives by which the objectives may be attained are identified; the full cost, effectiveness, and benefit implications of each alternative are determined; the assumptions, risks, and uncertainties are clarified; the cost, effectiveness, and benefit tradeoffs of the alternatives are made; the resource options are chosen-examined, screened and evaluated; and resource and program choices are subjected to sensitivity analyses. The product of this process is the utility integrated resource plan. The planning horizon for utility integrated resource

plans is 20 years. Unless otherwise ordered by the commission, the 20-year period begins on January 1 following the completion of the plan.

- Programming is that process by which the utility's 2. long-range resource program plans are scheduled for implementation over a five to ten-year period. In this process, a determination is made as to the order in which the selected program options are to be implemented; the phases or steps in which each program is to be implemented; the expected target group and the annual size of the target group or annual level of penetration of demand-side management programs; the expected annual supply-side capacity additions; the expected annual levels of effectiveness in achieving integrated resource planning objectives; and the annual expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of the programs. The result of this process is a program implementation schedule or an action plan. The schedule—action plan represents an implementation strategy or and timetable for program implementation. The action plan shall address utility actions for a five to ten year period.
- 3. Implementation is that process by which the resource program options to be implemented are acquired and instituted in accordance with the utility's program implementation schedule.
- 4. Evaluation is that process by which the results of the resource program options are measured in light of the utility—'s objectives. In this process the actual costs, effectiveness, and benefits of the resource options and the attainment of the utility—'s objectives are measured against those that were projected in the planning and programming stages of the planning cycle.

[KIUC]

A. Major Steps

There are four major steps in the integrated resource planning process: planning, programming, implementation, and evaluation.

 Planning is that process in which the utility's needs are identified, including any transmission or

generation needs; the utility's objectives are formulated; measures by which effectiveness in attaining objectives are specified; the alternatives by which the objectives may be attained are identified; the full cost, effectiveness, benefit implications of each alternative the assumptions, risks, determined; clarified; uncertainties are the scenarios identified; the cost, effectiveness, and benefit tradeoffs of the alternatives are made and how these alternatives are impacted by the range of plausible futures from each identified scenario; the resource options are chosen; and program choices subjected to sensitivity analyses. The product of this process is the utility's integrated resource plan. The planning horizon for utility integrated resource plans is 20 years. Unless otherwise ordered by the commission, the 20-year period begins on January 1 following the completion of the plan.

- Programming is that process by which the utility's 2. long-range resource plans are scheduled for implementation over a five-year period through the development of an action plan. In this process, a determination is made as to the options selected to be implemented; the order in which the selected options are to be implemented; the phases or steps by which each option is to be implemented; the expected target group and the annual size of the target group or annual level of penetration of demand-side management programs; the __ supply-side programs; the expected levels of effectiveness in achieving integrated resource planning objectives; and the annual expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of the plan. The result of this process is the action plan. The action plan provides an implementation strategy and timetable/schedule for resource plan implementation.
- 3. Implementation is that process by which the resource options to be implemented are acquired and instituted in accordance with the utility's action plan.
- 4. Evaluation is that process by which the results of the resource program options are measured in light of the utility's objectives. In this process the actual costs, effectiveness, and benefits of the

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resource options and the attainment of the utility's objectives are measured against those that were projected in the planning and programming stages of the planning cycle.

- B. The Planning Cycle
 - 1. Each utility shall complete conduct its initial integrated resource plan and implementation schedule and submit them for CESP process for submittal to the commission approval by the following dates:
 - a. Kauai Electric Division of Citizens Utilities Company: May 1, 1993.
 - b. Gasco, Inc.: May 1, 1993.
 - e. Hawaiian Electric Company, Inc.: July 1, 1993 18 months after issuance of D&O for this framework.
 - d.b. Hawaii Electric Light Company, Inc.:

 September 1, 1993 18 months after issuance of
 D&O for this framework.
 - e.c. Maui Electric Company, Limited: November 1, 1993—18 months after issuance of D&O for this framework.
 - d. Kauai Island Utility Cooperative: To be determined.
 - Utilities that are affiliated shall conduct their clean energy scenario planning in coordination with each other or in parallel since the clean energy scenario plan for one island utility may affect the choices and actions of another island utility.
 - 2. Each utility shall conduct a major review of its integrated resource plan CESP every three years. In such a review, a new 20-year time horizon shall be adopted, the planning process repeated, and the utility's resource programs re-analyzed fully. The first major review, following the submission of each utility's initial integrated resource plan to the commission in 1993, shall commence in 1995 so as to result in the submission to the commission of a new (second) integrated resource plan and implementation schedule in 1996 as follows:
 - a. Hawaiian Electric Company, Inc.: January 1, 1996.

- b. Kauai Electric Division of Citizens Utilities Company: April 1, 1996.
- c. Gasco, Inc.: April 1, 1996.
- d. Hawaii Electric Light Company, Inc.: June 1, 1996.
- e. Maui Electric Company, Limited: October 1, 1996.

Thereafter, each utility shall conduct a \underline{A} major review shall be conducted by each utility, resulting in the submission to the commission of a new integrated resource plan and implementation schedule on the same day CESP scenarios and CESP Action Plan in the same month every three years from the filing of the initial CESP.

[DBEDT]

B. The Planning Cycle

- 1. Each utility shall complete its planning scenarios and initial integrated resource action plan and implementation schedule and submit them for commission approval by the following dates:
 - a. Kauai Electric Division of Citizens Utilities
 Company Island Utility Cooperative: May 1,
 1993 18-months from date of issue of the
 commission's order in the above-captioned
 docket.
 - b. Gasco, Inc.: May 1, 1993 18-months from date of issue of the commission's order in the above-captioned docket.
 - c. Hawaiian Electric Company, Inc.: July 1, 1993
 18-months from date of issue of the
 commission's order in the above-captioned
 docket.
 - d. Hawaii Electric Light Company, Inc.: September 1, 1993 18-months from date of issue of the commission's order in the above-captioned docket.
 - e. Maui Electric Company, Limited: November 1, 1993 18-months from date of issue of the

commission's order in the above captioned docket.

- 2. The planning scenarios will have a 20-year time horizon beginning with the calendar year immediately following the date of issue of the commission's order in the above-captioned docket. The action plans will include the plan implementation schedule for the initial 5-years of the 20-year planning horizon covered by the planning scenarios.
- 3. Each utility shall conduct and file with the commission an annual review and evaluation of each strategy, resource, and program included in the action plan.
- 2.4. Each utility shall conduct a major review of its integrated resource plan planning scenarios every three years. In such a review, a new 20-year time horizon shall be adopted, the planning process repeated, and the utility's resource programs reanalyzed action plan fully evaluated, changed, or updated. The first major review, following the submission of each utility's initial integrated resource planning scenarios and action plan to the commission in 1993, shall commence in 1995 so as to result in the submission to the commission of a new (second integrated resource plan and implementation schedule in 1996 as follows:
 - a. Hawaiian Electric Company, Inc.: January 1, 1996.
 - b. Kauai Electric Division of Citizens Utilities Company: April 1, 1996.
 - c. Gasco, Inc.: April 1, 1996.
 - d. Hawaii Electric Light Company, Inc.: June 1, 1996.
 - e. Maui Electric Company, Limited: October 1, 1996.

in January of the 3rd year following the utility's initial filings.

Thereafter, each utility shall conduct a major review, resulting in the submission to the

commission of a new integrated resource plan and implementation schedule on the same day every three years.

[CTYS]

B. The Planning Cycle

There are four main components of the integrated resource planning cycle:

- 1. Each—Three Year Major Review. A major review of the utility shall complete its initial twenty-year integrated resource plan—and implementation schedule and submit them for commission approval by the following dates, planning assumptions and action plan(s) each three years:
 - a. Kauai Electric Division of Citizens Utilities
 Company: May 1, 1993. The commission will
 initiate each three year planning cycle by
 establishing one or more dockets to administer
 the planning process for each utility with a
 three-year cycle for major reviews.
 - (1) The commission shall establish one or more advisory groups for each utility and/or for several energy utilities collectively.
 - (2) The commission may establish one or more technical advisory groups or technical advisory committees within advisory groups to assist in monitoring, evaluating and interpreting the assumptions, modeling and analysis utilized in the preparation of the utility integrated resource plans and action plans.
 - b. Gasco, Inc.: May 1, 1993. At the beginning of each three-year IRP review cycle the commission may (independently or after a public meeting) specify:
 - (1) questions and issues that the specific round of IRP analysis and the resulting plan should address, and

- (2) any specific objectives or scenarios that should be considered in that specific round of IRP analysis.
- c. Hawaiian Electric Company, Inc.: July 1, 1993.

 The three year planning cycle shall establish and review:
 - (1) d. Hawaii Electric Light Company, Inc.: September 1, 1993.
 - e. Maui Electric Company, Limited:
 November 1, 1993. planning assumptions
 (projected demand, fuel prices, resource characteristics), including identification of possible future scenarios to be considered in developing plans and action plans.
 - (2) analytical methods (integration modeling, rate impact analyses, etc), including methods to consider identified scenarios.
 - (3) a base long range (20 year) resource plan.
 - (4) a five year (or longer) action plan.

Each utility shall conduct a major review of its integrated resource plan every three years. In such a review, a new 20-year time horizon shall be adopted, the planning process repeated, and the utility's resource programs re-analyzed fully. The first major review, following the submission of each utility's initial integrated resource plan to the commission in 1993, shall commence in 1995 so as to result in the submission to the commission of a new (second) integrated resource plan and implementation schedule in 1996 as follows:

- 2. Ongoing Analysis and Planning Capability.
 - analysis capability that is current and up to date at all times.
 - (1) On an ongoing basis, the utility shall update all important planning assumptions, forecasts, demand estimates, etc. as

- frequently as circumstances require and configure the planning process analytical models accordingly.
- (2) The utility shall notify the commission and shall notify and solicit comments to be forwarded to the commission from all planning docket parties and advisory group(s) whenever planning assumptions are updated.
- b. As needed for any regulatory purposes, the commission will request prompt and timely analysis from the utilities based on current, up-to-date planning assumptions.
 - (1) In the context of any docket, the commission may issue information requests to the utility requesting information and/or analysis based on current planning assumptions and modeling analysis capability.
 - (2) Planning docket parties and utility
 advisory group members shall be notified
 of any requests for information or
 analysis and documents shall be made
 available via the Commission's Document
 Management System.
 - (3) The commission may, at its discretion, issue any information requests and/or responses by the utility to the planning docket parties or participants, the advisory group(s) or any technical advisory group(s) or committee(s) for review and comment.

3. Current Action Plan.

- a. Hawaiian Electric Company, Inc.: January 1, 1996. Each utility shall maintain a current, up-to-date action plan at all times.
 - (1) To the extent that circumstances or changes in planning assumptions substantially affect the merits of the base resource plan or action plan, the Commission, parties and advisory group shall be notified.

- (2) Action plans shall be updated in accordance with supporting analytical methods and with the informed advice of the parties and advisory group.
- b. Kauai Electric Division of Citizens Utilities

 Company: April 1, 1996. Modified (updated)
 action plans would be prospective pending any
 explicit approval of any action plan components
 by the commission but would always be kept upto-date and publicly accessible to inform all
 stakeholders of current planning assumptions
 presumed by the utility.
 - (1) Actions proposed by the utility in any docket before the commission would be reviewed by the commission in light of the current, most recently approved action plan.
 - with the most recently approved action plan, the proposed actions must be consistent with the current updated action plan which should be reviewed by the commission prior to or concurrently with the commission's review of the proposed action with the informed advice of the planning docket parties and advisory group(s).
- c. Gasco, Inc.: April 1, 1996. Any approval of modifications to the utility integrated resource plan or action plan in a docket that considers actions not consistent with the approved utility integrated resource plan or approved action plan shall be made with the informed advice of the planning docket parties and participants in the advisory group(s). The utility shall specify and, after opportunity for comment by the planning docket parties and participants in the advisory group(s), the commission shall determine:
- d. Hawaii Electric Light Company, Inc.: June 1, 1996.
- e. Maui Electric Company, Limited: October 1, 1996.
- Thereafter, each utility shall conduct a major review, resulting in the submission to the commission of a

new integrated resource plan and implementation schedule on the same day every three years.

- (1) The extent to which any proposed actions are not consistent with the approved integrated resource plan and approved action plan.
- (2) The extent to which any proposed actions would affect any other aspects of the approved integrated resource plan and approved action plan.
- (3) Whether the proposed actions and resulting associated changes in the integrated resource plan and action plan are reasonable and in the public interest.

4. Evaluations.

a. As required by the commission each utility shall provide evaluations of the implementation of integrated resource plans, action plans and the attainment of planning objectives and statutory objectives.

[KIUC]

- B. The Planning Cycle
 - 1. Each utility shall complete its initial integrated resource plan and implementation schedule and submit them for commission approval by the following dates:
 - 2. Kauai Electric Division of Citizens Utilities Company: May 1, 1993.
 - 3. Casco, Inc.: May 1, 1993.
 - 4. Hawaiian Electric Company, Inc.: July 1, 1993.
 - 5. Hawaii Electric Light Company, Inc.: September 1, 1993.
 - 6. Maui Electric Company, Limited: November 1, 1993.

- 1. Each utility shall prepare an integrated resource plan in accordance with dates established by the commission in the initiating docket. The plan shall include the submittal of the 5-year action plan for commission approval.
- Each utility shall conduct a major review of its integrated resource plan every three years. In such a review, a new 20-year time horizon for the plan and a new 5-year time horizon for the action plan shall be adopted, the planning process repeated, and the utility's resource programs reanalyzed fully. The first major review, following the submission of each utility's initial integrated resource plan to the commission in 1993, shall commence in 1995 so as to result in the submission to the commission of a new (second) integrated resource plan and implementation schedule in 1996 as follows:
 - 1. Hawaiian Electric Company, Inc.: January 1, 1996.
 - 2. Kauai Electric Division of Citizens Utilities Company: April 1, 1996.
 - 3. Gasco, Inc.: April 1, 1996.
 - 4. Hawaii Electric Light Company, Inc.: June 1, 1996.
 - 5. Maui Electric Company, Limited: October 1, 1996.

Thereafter, each utility shall conduct a major review, resulting in the submission to the commission of a new integrated resource plan and implementation schedule on the same day every three years.

C. The Docket

- Each planning cycle for a utility will commence with the issuance of an order by the commission opening a docket for integrated resource planning CESP.
- 2. The docket will be maintained throughout the planning cycle for the filing of documents, the resolution of procedural disputes and other purposes related to the utility's integrated resource plan CESP scenarios and CESP Action Plan.
- 3. Within 30 days after the opening of the docket, the utility shall prepare, in consultation with the consumer advocate, and file with the commission a schedule that it intends to follow in the development of its integrated resource plan CESP scenarios and CESP Action Plan. The schedule may be amended upon the formation of an advisory group or groups committee or committees and thereafter as appropriate.

[MARRIOTTS]

- 3. Within 30 days after the opening of the docket, the utility shall prepare, in consultation with the Consumer Advocate and any entities that have been granted intervenor or participant status, and file with the Commission a schedule that it intends to follow in the development of its CESP scenarios and CESP Action Plan. The schedule may be amended upon the formation of an advisory committee or committees and thereafter as appropriate.
- 4. The utility shall complete its integrated resource plan and program implementation schedule <u>CESP</u> scenarios and <u>CESP</u> Action Plan within one year of the commencement of the planning cycle.

[DBEDT]

C. The Docket

- 1. Each planning cycle for a utility will commence with the issuance of an order by the commission opening a docket for integrated resource that utility's scenario planning.
- 2. The docket will be maintained shall remain open throughout the planning cycle for the filing of documents, the resolution of procedural disputes and other purposes related to the utility's integrated resource plan.
- within 30 days after the opening of the docket or within the schedule indicated by the commission's order initiating the docket, the utility shall prepare, in consultation with the consumer advocate, and file with the commission a proposed schedule that it intends to follow in the development of its integrated resource plan planning scenarios and action plan. The schedule may be amended upon the formation of an technical working groups and/or an advisory group or groups as required by the framework, or by commission approval of motions for participation or intervention by third parties, and thereafter as appropriate and approved by the commission.
- The utility shall complete its integrated resource plan planning scenarios and program implementation schedule action plan within one year of the commencement of the planning cycle.

[CTYS]

C. The Docket

- 1. Each planning cycle for a utility will commence with the issuance of an order by the commission opening a docket for integrated resource planning.
- The docket will be maintained throughout the planning cycle for the filing of documents, the resolution of procedural disputes and other purposes related to the utility integrated resource plan.

- 3. Within 30 days after the opening of the docket or, if petitions to intervene are filed within twenty days of the opening docket, by a date specified by the commission, the utility and parties shall prepare, in consultation with the consumer advocate, and file with the commission a proposed procedural order and procedural schedule that it intends to follow in for the development of its the utility integrated resource plan and action plan.
 - a. The schedule may be amended upon the formation of an advisory group or groups and thereafter as appropriate procedural schedule shall identify several stages of the planning process and specify dates, at each stage, for filings with the commission by the utility and parties and allowing filing of comments by participants in the advisory group(s), Stages shall include:
 - (1) Identification and determination of scenarios and planning assumptions.
 - (2) Identification and determination of analytical methods and models including methods to evaluate identified scenarios.
 - (3) Identification of candidate resource strategies to be evaluated.
 - (4) Proposed integrated resource plan(s) and action plan(s).
- 4. The utility shall complete its integrated resource plan and program implementation schedule within one year of the commencement of the planning cycle or according to a schedule approved by the commission.
- 5. Any party or advisory group member could petition the Commission at any time requesting the Commission's attention to review or take action regarding changes to planning assumptions or changes in action plans.
 - a. Parties or participants may request relief from the Commission by motion.
 - b. Parties, participants or advisory group members may petition the commission for action regarding changes to planning assumptions, long range plans or action plans by an informally by

letter. Any such requests will conform to the requirements in the commission's existing rules regarding informal complaints.

[KIUC]

C. The Docket

- Each planning cycle for a utility will commence with the issuance of an order by the commission opening a docket for integrated resource planning.
- 2. The docket will be maintained throughout the planning cycle for the filing of documents, the resolution of procedural disputes and other purposes related to the utility's integrated resource plan.
- 3. Within 30 days after the opening of the docket, the utility shall prepare, in consultation with the consumer advocate, and file with the commission a schedule that it intends to follow in the development of its integrated resource plan. The schedule may be amended upon the formation of an advisory group or groups and thereafter as appropriate.
- 4. The utility shall complete its integrated resource plan and program implementation schedule associated action plan within one year of the commencement of the planning cycle.

- D. Submissions to the Commission
 - 1. The utility shall submit its integrated resource plan CESP, which will include the CESP scenarios and CESP Action Plan as follows.
 - The utility shall include in its integrated resource plan a full and detailed description of (1) the needs identified; (2) the forecasts made; (3) the assumptions underlying the forecasts; (4) the objectives to be attained by the plan; (5) the measures by which achievement of the objectives is to be assessed; (6) the resource options or mix of options included in the plan; (7) the assumptions and the basis of the assumptions underlying the plan; (8) the risks and uncertainties associated with the plan; (9) the revenue requirements on a present value basis and on an annual basis; (10) the expected impact of the plan on demand; (11) the expected achievement of objectives; (12) the potential impact of the plan on rates, consumer bills, and consumer energy use; (13) the plan's external costs and benefits; and (14) the relative sensitivity of the plan to changes in assumptions and other conditions. The items enumerated should, where appropriate, be described for the plan as a whole and for each of the resources or mix of resources included in the plan.
 - b. The utility shall file with the integrated resource plan a full and detailed description of the analysis or analyses upon which the plan is based. The utility shall fully describe, among other things, (1) the data (and the source of the data) upon which needs were identified and forecasts made; (2) the methodologies used in forecasting; (3) the various objectives and measures of assessing attainment of objectives that were considered, but rejected, and the reasons or rejecting any objective or measure; (4) the resource options that were identified, but screened out and not considered and the reasons for the rejection of any resource option; (5) the

assumptions and the basis of the assumptions, the risks and uncertainties, the costs, effectiveness, and benefits (including external costs and benefits) and the impacts on demand, rates, consumer bills, and consumer energy uses associated with each resource option or mix of options that was considered; (6) the comparisons and the cost, effectiveness, and benefit tradeoffs and optimization made of the options and mixes of options; (7) the models used in the comparisons, tradeoffs, and optimization; (8) the criteria used in any ranking of options and mixes of options; and (9) the sensitivity analyses conducted for the options and mixes of options.

- resource plan a description of all alternate plans that the utility developed, the ranking it accorded the various plans, the criteria used in such ranking, and a full and detailed explanation of the analysis upon which it decided its preferred integrated resource plan.
- a. The utility shall include in its CESP a detailed description of:
 - The factors and planning assumptions underlying the development of each scenario, which includes but is not limited to: (a) the initiatives, mandates Deleted: present and Commission proceedings that establish Deleted: initiatives a "starting point" for the CESP scenarios; Deleted: common (b) the identification of generation and Deleted: planning transmission needs; (c) the proposed assumptions; procurement method for generation Deleted: identified; resources identified in the plans; (d) the Deleted: b forecasts made; (e) the assumptions Deleted: c underlying the forecasts; (f) the Deleted: d assumptions and the basis of the assumptions underlying the plans; (g) the Deleted: e risks and uncertainties associated with Deleted: f the plans; (h) the total resource cost of Deleted: g the plans; (i) the expected impact of the Deleted: h plans on demand; and (j) estimates of Deleted: i potential impact of the plans on customer rates and bills; and (k) the drivers of Deleted: , uncertainty that have a significant impact

on the planning assumptions.

- (ii) Locational Value Maps identifying geographic areas of distribution system growth.
- (iii) Renewable Energy Zones identifying potential areas of renewable energy development.
- A reasonable number of CESP scenarios shall be analyzed and developed to reflect a range of possible energy-related policy choices and risks facing the utility systems and citizens. These scenarios may feature different policy backdrops, such as major increases or decreases in oil prices, policy changes such as federal or international carbon regulation or the adoption of plug-in hybrid electric vehicles/electric vehicles, as well as different resource policies such as higher levels of energy efficiency, demand response, and renewable substitution (e.g., solar water heating and seawater-cooled air conditioning). In addition, these scenarios may feature different economic and financial backdrops, such as ranges of future State economic health and ranges of future financial market conditions. The CESP scenarios will guide the utility to develop its CESP Action Plan.
- written and, to the extent possible, in non-technical language. Charts graphs, and other visual devices may be utilized to aid in understanding its plan and the analyses made by the utility. The utility shall provide an executive summary of the plan and of the analyses and appropriately index its submissions.
- 2. The utility shall submit its program implementation schedule CESP Action Plan as follows.
 - a. The utility shall include in the schedule by year: the programs or phases of programs to be implemented in the year; the expected level of achievement of objectives; the expected size of the target group or level of penetration of any demand-side management program; the expected supply-side capacity addition; the

- expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of each program or phase of a program.
- b. The utility shall file with its program implementation schedule a full and detailed description of the analysis upon which the schedule is based. The utility shall fully describe, among other things:
 - (1) The steps required to realize and implement the supply-side and demand-side resource programs included in the schedule.
 - (2) How the target groups were selected and how program penetration for demand-side management programs and the expected levels of effectiveness in achieving integrated resource planning objectives were derived.
 - (3) The expected annual effects of program implementation on the utility and its system, the ratepayers, the environment, public health and safety, cultural interests, the state economy, and society in general.
- c. The program implementation schedule shall also be accompanied by the utility's proposals on cost and revenue loss recovery and incentives, as appropriate.
- a. The CESP Action Plan will be developed based on the CESP scenarios analyzed. The CESP Action Plan may contain elements or programs from one or more of the CESP scenarios. The evaluation of which elements to be included in the CESP Action Plan should be based on factors including but not limited to: (i) achieving state clean energy objectives; (ii) timing flexibility; and (iii) preserving a stable electric grid for the state's renewable energy future.
- b. Information pertaining to energy efficiency demand-side management programs shall be provided to the utility from the PBF

Administrator. The PBF Administrator shall include its projection of the energy and demand savings resulting from its energy efficiency programs and the expenditures required to be made to support the implementation of the energy efficiency programs.

- c. The utility shall include its projection of the energy and demand savings resulting from its demand response programs and any pilot DSM programs and the expenditures required to be made to support the implementation of these programs.
- d. The utility shall include the expected supplyside capacity additions, the proposed
 procurement method for the supply-side
 additions (including the use of exemption or
 waiver from Competitive Bidding), and the cost
 required to be made by the utility to support
 the implementation of the supply-side resource
 options.
- e. The utility shall include the expected transmission system additions and the estimated cost required to be made by the utility to support the implementation of the transmission additions.
- f. The utility shall include identification of smart grid improvements and upgrades to the utility system and the estimated cost required to be made by the utility to support the implementation of any smart grid improvements.
- g. The utility shall file with its CESP Action
 Plan a full description of the analysis upon
 which the schedule is based.
- h. The CESP Action Plan shall also be accompanied by the utility's estimated costs and proposals for cost recovery, as appropriate.
- i. The CESP Action Plan shall include any effort related to the implementation of the Framework for Competitive Bidding, including, but not limited to, the development of the request for proposal, parallel planning, and contingency planning.

- 3. The utility shall submit its annual \underline{an} evaluation report as follows.
 - a. The utility shall submit a minimum of one evaluation report between CESP cycles, preferably in the middle of the three years.
 - evaluation, an assessment of the continuing validity of the forecasts and assumptions upon which its integrated resource plan and its program implementation schedule were CESP Action Plan was fashioned, and update these assumptions as appropriate. Information pertaining to energy efficiency demand-side management programs shall be provided to the utility from the PBF Administrator.
 - b.c. The utility and the PBF Administrator shall also include for each demand response and energy efficiency program or phase of program included in the program implementation schedule respectively included in the CESP Action Plan for the immediately preceding year a comparison of:
 - (1) The expenditures anticipated to be made and the expenditures actually made, by cost categories and cost elements.
 - (2) The level of achievement of objectives energy and demand impacts anticipated and the level actually attained.
 - (3) The target group size or level of penetration anticipated for each demandside management program and the size or level actually realized.
 - (4) The effects of program implementation anticipated and the effects actually experienced.
 - e.d. The utility and the PBF Administrator shall provide an assessment of all substantial differences between original estimates and actual experience and of what the actual experience portends for the future. The PBF Administrator shall provide relevant

information to the utility for incorporation
into its evaluation report.

- the utility shall submit a revised program implementation plan CESP Action Plan that drops the immediately preceding year(s) from the schedule and includes include a corresponding new year(s). The program implementation plan CESP Action Plan must always reflect a five-year time span.
- 4. The utility may at any time, as a result of its annual evaluation or change in conditions, circumstances, or assumptions, revise or amend its integrated resource plan or its program implementation schedule CESP Action Plan, including LVMs and REZ. All revisions and amendments must conform to the appropriate requirements of this part D.
- 5. The utility may, at any time, request a waiver from the Commission from any or all of the provisions of the CESP Framework. A utility seeking such a waiver shall have the burden of showing, to the Commission's satisfaction, that compliance with the CESP Framework, or any of its provisions, is impossible, impractical, inappropriate or economically infeasible. Any waiver that a utility may seek should be sought at the earliest feasible and possible moment, at least not later than the moment it becomes apparent that the utility does not intend to comply with a particular CESP Framework requirement.
- 6. Notwithstanding the above, the Commission, upon a showing or submission that a utility has an ownership structure in which there is no substantial difference in economic interests between its owners and its customers¹, may waive or exempt that utility from any or all of the provisions of the CESP Framework.
- 5.7. The integrated resource plan and program implementation schedule CESP Action Plan approved by the commission shall govern all utility expenditure for capital projects, purchased power, and demandside management programs, and the PBF

Such as a member-owned cooperative.

Administrator's expenditure for energy efficiency programs. Notwithstanding approval of an integrated resource plan the CESP Action Plan: (a) an expenditure for any capital project in excess \$2,500,000, excluding customer \$500,000 of contributions, shall be submitted to the commission for review as provided in paragraph 2.3.g.2 of General Order No.7 (as amended by Decision and Order No. 21002, filed May 27, 2004 in Docket No. 03-0257); and (b) no obligation under any purchased contract shall be undertaken and no power expenditure for any specific demand-side management program included in an integrated resource plan or a program implementation schedule the CESP Action Plan shall be made without prior commission approval of the purchased power contract or demand-side management program. Projects and programs do not have to be included in the approved CESP Action Plan to be consistent with the CESP. Specific capital expenditures projects may not be identified or discussed in the CESP process because they are generally described as generic projects. All power purchases from qualifying facilities and independent power producers shall be subject to statute and commission rules and also may not be identified or specifically discussed in the CESP because proposals may be received at unforeseen times. Other types of projects, such as distribution projects, generally will not analyzed in the CESP process but the distribution planning process is coordinated with the CESP. The utility may file for Commission review and approval individual applications for execution implementation of projects, studies, programs, and other elements of the CESP Action Plan before the Commission issues a final decision approving the CESP Action Plan and the Commission may review these individual applications for programs in parallel with the review of the CESP Action Plan.

8. The CESP scenarios and CESP Action Plan resulting from this planning framework is not fixed and unchanging. The CESP scenarios and CESP Action Plan shall be flexible enough to account for changes in planning assumptions and forecasts. This will allow for major decisions regarding the implementation of program options (both supply-side and demand-side resources) to be made incrementally, based on the best available information at the time decisions

must be made. The CESP scenario analyses shall identify what information is critical to the decision making process, and also identify when the strategic decisions need to be made.

[DBEDT]

- D. Submissions to the Commission
 - 1. The For each three-year planning cycle, the utility shall submit its integrated resource plan planning scenarios and action plan as follows:
 - The utility shall include in its integrated a. resource plan a file with the commission a full and detailed description (1) the needs identified; (2) the forecasts made; (3) the assumptions underlying the forecasts; (4) the objectives to be attained by the plan; (5) the measures by which achievement of the objectives is to be assessed; (6) the resource options or mix of options included in the plan; (7) the assumptions and the basis of the assumptions underlying the plan; (8) the risks and uncertainties associated with the plan; (9) the revenue requirements on a present value basis and on an annual basis; (10) the expected impact of the plan on demand; (11) the expected achievement of objectives; (12) the potential impact of the plan on rates, consumer bills, and consumer energy use; (13) the plan's external costs and benefits; and (14) the relative sensitivity of the plan to changes in assumptions and other conditions. The items enumerated should, where appropriate, be described for the plan as a whole and for each of the resources or mix of resources included in the plan. and all supporting information for each planning scenario it identified and explored, including but not limited to the following:
 - (1) The focal issues and decisions to be addressed.
 - (2) A clear definition of the present situation or situations that will serve as

- the common departure point for each of the scenarios.
- (3) The list of long-term and/or large scale forces or events that could push the future in different directions.
- (4) The predetermined elements that are virtually certain to occur and that could be the driving forces for any scenario.
- (5) The analysis of the critical uncertainties or forces that affect the focal issues and decisions to be made.
- (6) The forecasts assumptions, including all the supporting workpapers, and a description of the forecast methodology and data used.
- (7) The strategy or plan of action for each scenario, including the identification and analysis of the required supply-side and demand-side resources, programs and policies, including the transmission and delivery infra-structure requirements.
- (8) cost-benefit analyses of the overall strategies or plans for each scenario, including the expected results.
- (9) The list of strategies, resources, and programs included in the action plan, including the selection criteria and description of the analysis method used.
- (10) A detailed cost-benefit analysis of each strategy, resource, or program included in the action plan, including the assumptions used in the analysis.
- (11) A Locational Value Map and a description of how it was used in the selection of the strategies, resources, and programs included in the action plan.
- (12) The expected target groups and expected program results of the demand-side options included in the action plan, including all supporting data and analysis.
- (13) The estimated annual supply-side capacity additions by resource type.
- (14) The estimate of the annual utility expenditures by cost type required to implement each strategy, resource or program included in the utility action plan.

- (15) The method of measuring and evaluating the action plan's achievement of the framework's planning objectives.
- (16) An estimate of the impact of the action plan on rates, consumer bills, consumer energy use, achievement of the state energy goals, environment, and economy.
- b. The utility shall file with the integrated resource plan a full and detailed description of the analysis or analyses upon which the plan is based. The utility shall fully describe, among other things, (1) the data (and the source of the data) upon which needs were identified and forecasts made; (2) the methodologies used in forecasting; (3) the various objectives and measures of assessing attainment of objectives that were considered, but rejected, and the reasons or rejecting any objective or measure; (4) the resource options that were identified, but screened out and not considered and the reasons for the rejection of any resource option; (5) the assumptions and the basis of the assumptions, the risks and uncertainties, the costs, effectiveness, and benefits (including external costs and benefits) and the impacts on demand, rates, consumer bills, and consumer energy uses associated with each resource option or mix of options that was considered; (6) the comparisons and the cost, effectiveness, and benefit tradeoffs and optimization made of the options and mixes of options; (7) the models used in the comparisons, tradeoffs, and optimization; (8) the criteria used in any ranking of options and mixes of options; and (9) the sensitivity analyses conducted for the options and mixes of options.
- resource plan a description of all alternate plans that the utility developed, the ranking it accorded the various plans, the criteria used in such ranking, and a full and detailed explanation of the analysis upon which it decided its preferred integrated resource plan.

- written and, to the extent possible, in non-technical language. Charts, graphs, and other visual devices may be utilized to aid in understanding its the action plan and the analyses by the utility. The utility shall provide an executive summary of the planning scenarios used and explored, the action plan, and of the analyses, and shall appropriately index its submissions.
- 2. The utility shall submit its program action plan implementation schedule as follows.:
 - a. The utility shall include in the schedule by year: the programs or phases of programs to be implemented in the year; the expected level of achievement of objectives; the expected size of the target group or level of penetration of any demand-side management program; the expected supply-side capacity addition; and the expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of each program or phase of a program type.
 - b. The utility shall file with its program action plan implementation schedule a full and detailed description of the analysis upon which the schedule is based. The utility shall fully describe, among other things:
 - (1) The steps required to realize and implement the supply-side and demand-side resource programs included in the schedule.
 - (2) How the target groups were selected and how program penetration for demand-side management programs options and the expected levels of effectiveness in achieving integrated resource planning objectives results were derived.
 - (3) The expected annual effects of program implementation on the utility and its system, the ratepayers, the environment, public health and safety, cultural

interests, the state economy, and society in general.

- c. The program implementation schedule shall also be accompanied by include the utility's proposals on cost and revenue less recovery and incentives, as appropriate. proposal for cost recovery method if appropriate.
- 3. The utility shall submit its annual evaluation as follows. including the following:
 - a. The utility shall include in its annual evaluation, a An assessment of the continuing validity of the forecasts and assumptions upon which its integrated resource plan and its program implementation schedule were fashioned.
 - b. The utility shall also include for each program or phase of program included in the program implementation schedule for the immediately preceding year a comparison of:
 - (1) The expenditures anticipated to be made and the expenditures actually made, by cost categories and cost elements.
 - (2) The level of achievement of objectives anticipated and the level actually attained.
 - (3) The target group size or level of penetration anticipated for each demandside management program and the size or level actually realized.
 - (4) The effects of program implementation anticipated and the effects actually experienced.
 - c. The utility shall provide an assessment of all substantial differences between original estimates and actual experience and of what the actual experience portends for the future.
 - b. A comparison of the estimated expenditures and the actual incurred expenses for the year, and the reasons for the differences.

- c. A comparison of the planning objectives

 actually achieved by each strategy, resource or
 program included in the action plan, and the
 forecasted or estimated results for the year
 including the reasons for the differences.
- d. Together with its annual evaluation, the utility shall submit a revised program implementation plan that drops the immediately preceding year from the schedule and includes a new year. The program implementation plan must always reflect a five-year time span.
- 4. The utility may at any time, as a result of its annual evaluation or change in conditions, circumstances, or assumptions, revise or amend its integrated resource action plan or its program implementation schedule. All revisions and amendments must conform to the appropriate requirements of this part D the framework.
- The integrated resource utility action plan and 5. program implementation schedule approved by the commission shall govern be a major consideration in commission approval of all utility expenditures for capital projects, purchased power, and utilitycontrolled demand-side management programs. Notwithstanding approval of an integrated resource action plan: (a) an expenditure for any capital project in excess of \$500,000 shall be submitted to the commission for review as provided in paragraph 2.3.g.2 of General Order No.7; and (b) no obligation under any purchased power contract shall be undertaken and no expenditures for any specific utility-controlled demand-side management program included in an integrated resource action plan or a program implementation schedule shall be made without prior commission approval. All power purchases from qualifying facilities and independent power producers shall be subject to statute and commission rules.

- D. Submissions to the Commission
 - The—In each three year general review, the utility shall submit its integrated resource plan as follows.
 - The utility shall include in its integrated a. resource plan a full and detailed description of (1) the generation, major distribution, and transmission needs identified; (2) the forecasts made, including supply- and demandside distributed generation forecasts; (3) the assumptions underlying the forecasts; (4) the objectives to be attained by the plan; (5) the measures by which achievement of the objectives is to be assessed; (6) the resource options or mix of options included in the plan; (7) the assumptions and the basis of the assumptions underlying the plan; (8) the risks and uncertainties associated with the plan; (9) the revenue requirements on a present value basis and on an annual basis; (10) the expected impact of the plan on demand; (11) the expected achievement of objectives; (12) the potential impact of the plan on rates, and consumer bills, including any potential rate and billing impacts due to possible rate equalization measures between utility service territories, and consumer energy use; (13) the plan-'s external costs and benefits; and (14) the relative sensitivity of the plan to changes in assumptions and other conditions. The items enumerated should, where appropriate, be described for the plan as a whole and for each of the resources or mix of resources included in the plan.
 - b. The utility shall file with the integrated resource plan a full and detailed description of the analysis or analyses upon which the plan is based. The utility shall fully describe, among other things, (1) the data (and the source of the data) upon which needs were identified and forecasts made; (2) the methodologies used in forecasting; (3) the various objectives and measures of assessing attainment of objectives that were considered, but rejected, and the reasons or rejecting any

objective or measure; (4) the resource options that were identified, but screened out and not considered and the reasons for the rejection of any resource option; (5) the assumptions and the basis of the assumptions, the risks and uncertainties, the costs, effectiveness, and benefits (including external costs and benefits) and the impacts on demand, rates, consumer bills, and consumer energy uses associated with each resource option or mix of options that was considered; (6) the comparisons and the cost, effectiveness, and benefit tradeoffs and optimization made of the options and mixes of options; (7) the models used in the comparisons, tradeoffs, and optimization; (8) the criteria used in any ranking of options and mixes of options; and (9) the sensitivity analyses conducted for the options and mixes of options.

- c. The utility shall also file with the integrated resource plan a description of all alternate plans that the utility developed, the ranking it accorded the various plans, the criteria used in such ranking, and a full and detailed explanation of the analysis upon which it decided its preferred integrated resource plan.
- d. The submissions should be simply and clearly written and, to the extent possible, in non-technical language. Charts graphs, and other visual devices may be utilized to aid in understanding its plan and the analyses made by the utility. The utility shall provide an executive summary of the plan and of the analyses and appropriately index its submissions.
- 2. The—In each three year general review, the utility shall submit its program implementation schedule—action plan as follows.
 - a. The utility shall include in the schedule

 action plan by year: the programs or

 phases of programs to be implemented in

 the year; the expected level of

 achievement of objectives; the expected

 size of the target group or level of

 penetration of any demand-side management

 program; the expected supply-side capacity

addition; the expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of each program or phase of a program.

- b. The utility shall file with its program implementation schedule action plan a full and detailed description of the analysis upon which the schedule is based. The utility shall fully describe, among other things:
 - (1) The steps required to realize and implement the supply-side and demandside resource programs included in the schedule.
 - (2) How the target groups were selected and how program penetration for demand-side management programs and the expected levels of effectiveness in achieving integrated resource planning objectives were derived.
 - (3) The expected annual effects of program implementation on the utility and its system, the ratepayers, the environment, public health and safety, cultural interests, the state economy, and society in general.
- c. The program implementation schedule shall also be accompanied by the utility's proposals on cost and revenue loss recovery and incentives, as appropriate.
- d. The utility shall include the expected transmission system additions and the estimated cost required to be made by the utility to support the implementation of the transmission additions.
- e. The utility shall include the identification of the expected major distribution system additions.
- f. The utility shall include identification of smart grid improvements and upgrades to the utility system and the estimated cost

- required to be made by the utility to support the implementation of any smart grid improvements.
- 3. The utility shall submit its annual evaluation as follows regularly update its action plan as circumstances require so as to always maintain a current and up-to-date action plan.
 - a. The utility shall include in its annual evaluation make, on an ongoing basis, an assessment of the continuing validity of the forecasts and assumptions upon which its integrated resource plan and its program implementation schedule action plan were fashioned.
 - b. The utility shall also include for each program or phase of program included in the program implementation schedule for the immediately preceding year a comparison of action plan current information as follows:
 - (1) The expenditures anticipated to be made and the expenditures actually made, by cost categories and cost elements.
 - (2) The level of achievement of objectives anticipated and the level actually attained, for each program or action identified in the action plan.
 - (3) (2) The target group size or level of penetration anticipated for each demand-side management program and the size or level actually realized.
 - (4)(3) The effects of program implementation anticipated and the effects actually experienced.
 - c. The utility shall provide an assessment of all substantial differences between original estimates and actual experience and of what the actual experience portends for the future.

- d. Together with its annual evaluation, the utility shall submit a revised program implementation plan that drops the immediately preceding year from the schedule and includes a new year. The program implementation plan must always reflect a five-year time span.
- 4. The utility may at any time, as a result of its annual evaluation or a change in conditions, circumstances, or assumptions, revise or amend its integrated resource plan or its program implementation schedule. All revisions and amendments must conform to the appropriate requirements of this part D action plan. Modified (updated) action plans would be prospective pending any explicit approval of any action plan components by the commission but would always be kept up-to-date and publicly accessible to inform all stakeholders of current planning assumptions presumed by the utility.
- The integrated resource plan and program 5. implementation schedule approved by the commission shall govern action plan shall serve as the context and analytical basis for the regulation of all utility expenditure for capital projects, purchased power, and demandside management programs. Notwithstanding approval of an integrated resource plan: (a) an expenditure for any capital project in excess of \$500,000-2,500,000 shall be submitted to the commission for review as provided in paragraph 2.3.g.2 of General Order No.7; and (b) no obligation under any purchased power contract shall be undertaken and no expenditure for any specific demand-side management or demand response program included in an integrated resource plan or a program implementation schedule action plan shall be made without prior commission approval. All power purchases from qualifying facilities and independent power producers shall be subject to statute and commission rules.
- 6. The commission, upon a showing that a utility has an ownership structure in which there is no substantial difference in economic interests between its owners and customers, may waive or

[KIUC]

- D. Submissions to the Commission
 - The utility shall submit its integrated resource plan as follows.
 - The utility shall include in its integrated a. resource plan a full and detailed description of (1) the needs identified; (2) the forecasts made; (3) any assumptions underlying the forecasts; (4) the objectives to be attained by the plan; (5) the measures by which achievement of the objectives is to be assessed; (6) the resource options or mix of options included in the plan; (7) the assumptions and the basis of the assumptions underlying the plan; (8) the risks and with uncertainties associated the plan including the identified scenarios; (9) the energy policies, initiatives and requirements considered; (10) the revenue requirements on a present value basis and on an annual basis; (11) the expected impact of the plan on demand; (12) the expected achievement of objectives; (13) the potential impact of the plan on rates, consumer bills, and consumer energy use; (14) the plan's external costs and benefits; and (15) the relative sensitivity of the plan to changes in assumptions and other conditions. The items enumerated should, where appropriate, be described for the plan as a whole and for each of the resources or mix of resources included in the plan.
 - b. The utility shall file with the integrated resource plan a full and detailed description of the analysis or analyses upon which the plan is based. The utility shall fully describe, among other things, (1) the data (and the source of the data) upon which needs were identified and forecasts made; (2) the

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methodologies used in forecasting; (3) how the plan furthers, accomplishes and complies with applicable energy policies, initiatives and requirements; (4) how the range of plausible futures considered for each identified scenario impacted the utility's planning; (5), the various objectives and measures of assessing attainment of objectives that were considered, but rejected, and the reasons or rejecting any objective or measure; (6) the resource options that were identified, screened out and not considered and the reasons for the rejection of any resource option; (7) any assumptions and the basis of the assumptions; (8) the risks and uncertainties, the costs, effectiveness, and benefits (including external costs benefits) and the impacts on demand, rates, consumer bills, and consumer energy uses associated with each resource option or mix of options that was considered; (9) the comparisons and the cost, effectiveness, and benefit tradeoffs and optimization made of the options and mixes of options; (10) the models used in the comparisons, tradeoffs, optimization; (11) the criteria used in any ranking of options and mixes of options; and (12) the sensitivity analyses conducted for the options and mixes of options.

c. The utility shall also file with the integrated resource plan a description of all alternate plans that the utility evaluated, the ranking it accorded the various plans, the criteria used in such ranking (including any criteria developed as a result of the identified scenarios), and a full and detailed explanation of the analysis upon which it selected its preferred integrated resource plan.

d. The submissions should be simply and clearly written and, to the extent possible, in non-technical language. Charts, graphs, and other visual devices may be utilized to aid in understanding the plan, the action plan and the analyses made by the utility. The utility shall provide an executive summary of the plan, the action plan, and of the analyses and appropriately index its submissions.

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2. The utility shall submit its action plan as follows.

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a. The utility shall include in the action plan by year: an implementation schedule that shows the programs or phases of programs to be implemented in each of the 5 years of the action plan; the expected level of achievement of objectives; the expected size of the target group or level of penetration of any demand-side management activity; the expected supply-side resource additions; the expenditures, by cost categories and cost elements, required to be made by the utility to support implementation of each resource option or phase of such option.

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b. The utility shall file with its action plan a full and detailed description of the analysis upon which the implementation schedule is based. The utility shall fully describe, among other things:

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(1) The steps required to realize and implement the supply-side and demand-side resources included in the schedule.

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- (2) How the target groups were selected and how program penetration for demand-side management programs and the expected levels of effectiveness in achieving integrated resource planning objectives were derived.
- (3) The expected annual effects of implementation on the utility and its system, the ratepayers, the environment, public health and safety, cultural interests, the state economy, and society in general.

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the utility's proposals on cost and revenue loss recovery and incentives, as appropriate.

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- The utility shall submit its annual evaluation as follows.
 - a. The utility shall include in its annual evaluation, an assessment of the continuing validity of the forecasts and assumptions upon

which its integrated resource plan and its action plan were fashioned.

Deleted: program implementation schedule

b. The utility shall also include for each program or phase of program included in the action plan for the immediately preceding year a comparison of:

Deleted: program implementation schedule

- (1) The expenditures anticipated to be made and the expenditures actually made, by cost categories and cost elements.
- (2) The level of achievement of objectives anticipated and the level actually attained.
- (3) The target group size or level of penetration anticipated for each demandside management program and the size or level actually realized.
- (4) The effects of program implementation anticipated and the effects actually experienced.
- c. The utility shall provide an assessment of all substantial differences between original estimates and actual experience and of what the actual experience portends for the future.
- d. Together with its annual evaluation, the utility shall submit a revised or updated action plan that drops the immediately preceding year from the schedule and includes a new year. The action plan must always reflect a five-year time span.

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4. The utility may at any time, as a result of its annual evaluation or change in conditions, circumstances, or assumptions, revise or amend its integrated resource plan or its action plan. All revisions and amendments must conform to the appropriate requirements of this part D.

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The utility may, at any time, request a waiver from the commission from any or all of the provisions of this framework. A utility seeking such a waiver shall have the burden of showing, to the commission's satisfaction, that compliance with this framework, or any of its provisions, is impossible,

impractical, inappropriate, economically infeasible, or otherwise not in the public interest. Any waiver that a utility may seek should be sought at the earliest feasible and possible moment, at least not later than the moment it becomes apparent that the utility does not intend to comply with a particular framework requirement.

6. The integrated resource plan and resulting action plan approved by the commission shall provide a basis for all utility expenditure for capital purchased projects, power, demand-side and management programs. Notwithstanding approval of the action plan: (a) an expenditure for any capital project shall be submitted to the commission for review to the extent required under paragraph 2.3.g.2 of General Order No.7, as amended or may be time to from obligation (b) no under any purchased power contract shall be undertaken and no expenditure for any specific demand-side management program included in an integrated resource plan or action shall be made without prior commission All power purchases from qualifying facilities and independent power producers shall be subject to any applicable statute and commission rules.

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[MARRIOTTS]

- D. Submissions to the Commission
 - 1. The utility shall submit its CESP to the Commission, and shall post on its website, on the same date as any such submission is filed with the Commission, a copy of the application in downloadable, PDF format under the heading "CESP And Related Filings And Orders." The utility shall simultaneously post the docket number assigned to the submission by the Commission. The CESP will include the CESP scenarios and CESP Action Plan as follows.
 - a. The utility shall include in its CESP a detailed description of:
 - (i) The factors and assumptions underlying the development of each scenario, which includes but is not limited to: (a) the generation and transmission needs

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Formatted: Font: (Default) Courier New, 12 pt, Font color: Red identified; (b) the proposed procurement method for generation resources identified in the plans; (c) the forecasts made; (d) the assumptions underlying the forecasts; (e) the assumptions and the basis of the assumptions underlying the plans; (f) the risks and uncertainties associated with the plans; (g) the total resource cost of the plans; (h) the expected impact of the plans on demand; and (i) estimates of potential impact of the plans on customer rates and bills.

(ii) Locational Value Maps videntifying geographic areas of distribution system growth within the next 3-5 years where distributed resources and energy efficiency could be beneficial within the existing transmission and distribution system limits. (However, proposed distributed resource and energy efficiency projects that are not within any geographic area so identified shall not be evaluated differently or subject to any different standards than such projects within those areas.)

Deleted: identifying geographic areas of distribution system growth.

- (iii) Renewable Energy Zones identifying potential areas of renewable energy development.
- b. A reasonable number of CESP scenarios shall be analyzed and developed to reflect a range of possible energy-related policy choices and risks facing the utility systems and citizens. These scenarios may include, but are not limited to, different policy backdrops, such as major increases or decreases in oil prices, policy changes such as federal or international carbon regulation or the adoption of plug-in hybrid electric vehicles/electric vehicles, as well as different resource policies such as higher levels of energy efficiency, demand response, and renewable substitution (e.g., solar water heating and seawater-cooled air conditioning). . In addition, these scenarios may feature different economic and financial backdrops, such as ranges of future State economic health and ranges of future financial

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Deleted: [Energy Agreement Initiative No. 33, subpart a, page 38] market conditions. The CESP scenarios will guide the utility to develop its CESP Action Plan.

c. The submissions should be simple and clearly written and, to the extent possible, in non-technical language. Charts, graphs, and other visual devices may be utilized to aid in understanding its plan and the analyses made by the utility. The utility shall provide an executive summary of the plan and of the analyses and appropriately index its submissions.

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d. The utility shall file a full and detailed description of the analysis or analyses on which the CESP is based.

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e. The utility shall file a description of any alternate CESPs developed by the utility and an explanation as to why each alternate was rejected.

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2. The utility shall submit its CESP Action Plan to the Commission, and shall post on its website, on the same date as any such submission is filed with the Commission, a copy of the application in downloadable, PDF format under the heading "CESP And Related Filings And Orders." The utility shall simultaneously post the docket number assigned to the submission by the Commission.

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a. The CESP Action Plan will be developed based on the CESP scenarios analyzed. The CESP Action Plan may contain elements or programs from one or more of the CESP scenarios. The evaluation of which elements to be included in the CESP Action Plan should be based on factors including but not limited to: (i) achieving state clean energy objectives; (ii) timing flexibility; and (iii) preserving a stable electric grid for the state's renewable energy

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b. Information pertaining to energy efficiency demand-side management programs shall be provided to the utility from the PBF Administrator. The PBF Administrator shall include its projection of the energy and demand

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future.

savings resulting from its energy efficiency programs and the expenditures required to be made to support the implementation of the energy efficiency programs.

- c. The utility shall include its projection of the energy and demand savings resulting from its demand response programs and any pilot DSM programs authorized by the Public Utilities Commission of the State of Hawaii and the expenditures required to be made to support the implementation of these programs.
- d. The utility shall include the expected supplyside capacity additions, the proposed
 procurement method for the supply-side
 additions (including the use of exemption or
 waiver from Competitive Bidding), and the cost
 required to be made by the utility to support
 the implementation of the supply-side resource
 options as well as an estimate of any benefits
 that offset such costs.
- e. The utility shall include the expected transmission system additions and the estimated cost required to be made by the utility to support the implementation of the transmission additions as well as an estimate of any benefits that offset such costs.

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f. The utility shall include identification of smart grid improvements and upgrades to the utility system and the estimated cost required to be made by the utility to support the implementation of any smart grid improvements as well as an estimate of any benefits that offset such costs.

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g. The utility shall file with its CESP Action Plan a full description of the analysis upon which the schedule is based.

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h. The CESP Action Plan shall also be accompanied by the utility's estimated costs and proposals for cost recovery, as appropriate, as well as an estimate of any benefits that offset such costs.

Formatted: Font: (Default) Courier New, 12 pt, Font color: Red i. The CESP Action Plan shall include any effort related to the implementation of the Framework for Competitive Bidding, including, but not limited to, the development of the request for proposal, parallel planning, and contingency planning.

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The utility shall submit an evaluation report to the Commission, and shall post on its website, on the same date as any such report is filed with the Commission, a copy of the report in downloadable, PDF format under the heading "CESP And Related Filings And Orders." The utility shall simultaneously post the docket number assigned to the submission by the Commission.

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- a. The utility shall submit a minimum of one evaluation report between CESP cycles, preferably in the middle of the three years.
- b. The utility shall include in its evaluation, an assessment of the continuing validity of the forecasts and assumptions upon which its CESP Action Plan was fashioned, and update these assumptions as appropriate. Information pertaining to energy efficiency demand-side management programs shall be provided to the utility from the PBF Administrator.

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c. The utility and the PBF Administrator shall also include for each demand response and energy efficiency program respectively included in the CESP Action Plan for the immediately preceding year a comparison of:

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- (i) The expenditures anticipated to be made and the expenditures actually made.
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- (ii) The level of achievement of energy and demand impacts anticipated and the level actually attained.
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- d. The utility and the PBF Administrator shall provide an assessment of all substantial differences between original estimates and actual experience and of what the actual experience portends for the future. The PBF Administrator shall provide relevant

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information to the utility for incorporation into its evaluation report.

e. As part of its evaluation, the utility shall submit a revised CESP Action Plan that drops the immediately preceding year(s) from the schedule of the CESP Action Plan and include a corresponding new year(s). The CESP Action Plan must always reflect a five-year time span.

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4. The utility may at any time, as a result of its evaluation or change in conditions, circumstances, or assumptions, revise or amend its CESP Action Plan, including LVMs and REZ. All revisions and amendments must conform to the appropriate requirements of this part D and shall be filed with the Commission, and shall be posted on the utility's website, on the same date as any such revision and/or amendment is filed with the Commission, a copy of same in downloadable, PDF format under the heading "CESP And Related Filings And Orders." The utility shall simultaneously post the docket number assigned to the submission by the Commission.

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5. The utility may, at any time, request a waiver from the Commission from any or all of the provisions of the CESP Framework, provided that it simultaneously serves the parties to the docket. In addition, the utility shall post on its website, on the same date as any such request is filed with the Commission, a copy of the request in downloadable, PDF format under the heading "CESP And Related Filings And Orders." The utility shall simultaneously post the docket number assigned to the request by the Commission. A utility seeking such a waiver shall have the burden of showing, to the Commission's satisfaction, that compliance with the CESP Framework, or any of its provisions, is impossible, impractical, inappropriate or economically infeasible. Any waiver that a utility may seek should be sought at the earliest feasible and possible moment, at least not later than the moment it becomes apparent that the utility does not intend to comply with a particular CESP Framework requirement.

- The CESP Action Plan approved by the Commission shall provide guidance for all utility expenditures for capital projects, purchased power, and demand response programs, and the PBF Administrator's expenditure for energy efficiency programs. Notwithstanding approval of the CESP Action Plan: (a) an expenditure for any capital project in excess of \$2,500,000, excluding customer contributions, shall be submitted to the Commission for review as provided in paragraph 2.3. g. 2 of General Order No.7 (as amended by Decision and Order No. 21002, filed May 27, 2004 in Docket No. 03-0257); and (b) no obligation under any purchased power contract shall be undertaken and no expenditure for any specific demand-side management program included in the CESP Action Plan shall be made without prior Commission approval of the purchased power contract or demand-side management program. Projects and programs do not have to be included in the approved CESP Action Plan to be consistent with the CESP. Specific capital expenditures projects may not be identified or discussed in the CESP process because they are generally described as generic projects. All power purchases from qualifying facilities and independent power producers shall be subject to statute and Commission rules and also may not be identified or specifically discussed in the CESP because proposals may be received at unforeseen times. Other types of projects, such as distribution projects, generally will not be analyzed in the CESP process but the distribution planning process is coordinated with the CESP. The utility should file an amendment to the CESP addressing any projects received at unforeseen
- 7. The CESP scenarios and CESP Action Plan resulting from this planning framework are not fixed and unchanging. The CESP scenarios and CESP Action Plan shall be flexible enough to account for changes in planning assumptions and forecasts. This will allow for major decisions regarding the implementation of program options (both supply-side and demand-side resources) to be made incrementally, based on the best available information at the time decisions must be made. The CESP scenario analyses shall identify what information is critical to the

Deleted: Notwithstanding the above, the Commission, upon a showing or submission that a utility has an ownership structure in which there is no substantial difference in economic interests between its owners and its customers², may waive or exempt that utility from any or all of the provisions of the CESP Framework.¶

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times.

decision making process, and also identify when the strategic decisions need to be made.

E. Public Participation

To maximize encourage public participation in each utility's integrated resource clean energy scenario planning process, opportunities for such participation shall be provided through advisory groups committees to the utility, public hearings, and interventions in formal proceedings before the commission.

1. Advisory groups Committees

- a. The utility shall organize in each county in which the utility provides service or conducts utility business a group or groups of representatives of public and private entities to advise provide input to the utility and the PBF Administrator in the development of its integrated resource plan CESP. A separate advisory group committee may be formed for each stage of the planning process, as appropriate. The utility shall chair each advisory group committee. The Independent Observer shall facilitate all Advisory Committee meetings.
- The public and private entities includable in b. an advisory $\frac{\text{group}}{\text{group}}$ $\frac{\text{committee}}{\text{that are}}$ are those that represent interests $\frac{\text{that}}{\text{that}}$ are affected by the utility's integrated resource plan CESP scenarios and that can provide significant perspective or useful expertise in the development of the plan scenarios. These entities include state and county agencies and cultural, business, environmental. community interest groups. An advisory group committee should be representative of as broad a spectrum of interests as possible, subject to the limitation that the interests represented should not be so numerous as to make deliberations as a group unwieldy and to allow for the timely completion and filing of a CESP.
- c. The utility shall hold meetings with the advisory committee, facilitated by the Independent Observer, during key phases of the process and in between full CESP cycles with a minimum quarterly participation to the extent

- meaningful and practical. The PBF Administrator shall attend meetings to support their forecast of energy efficiency programs.
- d. The utility shall consider the input of each advisory group committee; but the utility is not bound to follow the advice of any advisory group committee.
- d.e. All data reasonably necessary for an advisory group committee to participate in the utility's integrated resource clean energy scenario planning process shall be provided by the utility, subject to the need to protect the confidentiality of customer-specific and proprietary information.
- e.f. The use by the advisory groups committees of the collaborative process is encouraged to arrive at a consensus on issues.
- f.g. All reasonable out-of-pocket costs incurred by participants in advisory groups committees (other than governmental agencies) shall be paid for by the utility, subject to recovery as part of the utility's cost of integrated resource clean energy scenario planning.

2. Public hearings

- a. The utility is encouraged to conduct public hearings or provide public forums at the various, discrete phases of the planning process for the purpose of securing the input of those members of the public who are not represented by entities constituting advisory groups committees. Any public meetings or public forums shall be facilitated by the Independent Observer.
- b. Upon the filing of requests for approval of an integrated resource plan or projects CESP Action Plan, the commission may, and it shall where required by statute, conduct public hearings for the purpose of securing public input on the utility's proposal. The commission may also conduct such informal public meetings as it deems advisable.

3. Intervention

- a. Upon the filing of its integrated resource plan CESP, the utility shall cause to be published in a newspaper of general circulation in the State a notice informing the general public that the utility has filed its proposed integrated resource plan CESP Action Plan with the commission for the commission's approval.
- To encourage public awareness of the filing of b. a proposed utility plan the CESP, a copy of the proposed plan CESP Action Plan and the supporting analysis shall be available for public review at the commission's office and at the office of the commission's representative in the county serviced by the utility. In the case of Maui Electric Company, Limited, the utility shall also make a copy of its proposed plan and the supporting analysis available at a public library on each of the islands of Molokai and Lanai. In the case of Hawaii Electric Light Company, Inc., the utility shall also make a copy of its proposed plan and the supporting analysis available at a public library in Kona. The utilities shall provide copies of these documents online on its website. Each utility shall note availability of the documents for public review at these locations in its published notice. The utility shall make copies of the executive summary of the plan and the analysis available to the general public at no cost, except the cost of duplication.
- Applications to intervene or to participate without intervention in any proceeding in which a utility seeks commission approval of its integrated resource plan CESP Action Plan are subject to the rules prescribed in part IV of the commission's General Order No.1 (Practice and Procedure before the Public Utilities Commission) Hawaii Administrative Rules, Chapter 6-61 (Rules of Practice and Procedure before the Public Utilities Commission); except that such applications may be filed with the commission not later 20 days after the publication by the utility of a notice informing the general public of the filing of the utility's application commission approval of its integrated resource

- plan CESP Action Plan, notwithstanding the opening of the docket before such publication.
- d. A person's status as an intervenor or participant shall continue through the life of the docket, unless the person voluntarily withdraws or is dismissed as an intervenor or participant by the commission for cause.

4. Intervenor funding

- Upon the issuance of the commission's final order on a utility's integrated resource plan CESP Action Plan or any amendment to the plan CESP Action Plan, the commission may grant an intervenor or participant (other than a governmental agency, a for-profit entity, and an association of for-profit entities) recovery of all or part of the intervenor's or participant's direct out-of-pocket costs reasonably and necessarily incurred in intervention or participation. Any recovery and the amount of such recovery are in the sole discretion of the commission. All intervenors and participants (who plan to seek intervenor funding) must file a budget with the Commission within 30 days after intervention is granted, setting forth:
- (1) the estimated cost of intervention or participation;
- (2) the level of funding expected to be funded from other sources; and
- (3) the net amount expected to be recovered from utility ratepayers.
- b. To be eligible for such recovery:
 - (1) The intervenor or participant must show a need for financial assistance;
 - (2) The intervenor or participant must demonstrate that it has made reasonable efforts to secure funding elsewhere, without success;

- (3) The intervenor or participant must maintain accurate and meaningful books of account on the expenditures incurred; and
- (4) The commission must find that the intervenor or participant made a substantial contribution in assisting the commission in arriving at its decision.
- c. The intervenor's or participant's books of account are subject to audit, and the commission may impose other requirements in any specific case.
- d. Such allowance may be made only upon the application of the intervenor or participant within 20 days after the issuance of the commission's final order, together with justification and documented proof of the costs incurred.
- e. The costs of intervenor funding shall be paid for by the utility, subject to recovery as part of its costs of integrated resource planning.

[DBEDT]

E. Public Participation

To maximize public participation in each utility's integrated resource planning process, opportunities for such participation shall be provided through technical working groups, advisory groups to the utility, public hearings, and interventions in formal proceedings before the commission.

1. Technical working groups

a. The utility shall organize technical working group or groups to assist and work with the utilities in developing the following specific steps in the planning process: (1) development of the planning scenarios; (2) development of the forecast assumptions; (3) development of the strategy for each scenario; and (4) selection of the strategy, resources, or programs to include in the action plan.

- b. The membership of technical working group or groups shall include utility staff and non-utility representatives from the office of the department of commerce and consumer affairs; the public benefits fee administrator; department of business, economic development and tourism's energy office; the relevant county's planning office; as well as representatives from environmental, business, and consumer interest groups.
- c. The technical working groups' non-utility members shall have the requisite skills and expertise, and be able and willing to devote the time required to substantively participate in the working groups' activities or assigned tasks.
- d. The technical working groups will be co-chaired by the utility and a non-utility member.
- e. The role of the technical working group or groups may include co-chairing the working group, working with the utilities in developing the scenarios and forecast assumptions, selecting the strategy or program or resource to include in the action plan, compiling data, reviewing CESP-related reports filed with the commission as may be required under the framework, participating and helping the utilities in conducting the advisory group meetings and all or any CESP-related public meetings or workshops.

1.2. Advisory groups

a. The utility shall organize in each county in which the utility provides service or conducts utility business a an advisory group or groups of consisting of representatives of public and private entities to advise the utility in the development of its integrated resource plan. A separate advisory group may be formed for each stage of the planning process, as appropriate. The utility shall chair each advisory group. whose interests are affected by the utility's resource plan and that can provide important perspective to the utility's planning process.

- b. The public and private entities includable in an advisory group are those that represent interests that are affected by the utility's integrated resource plan and that can provide significant perspective or useful expertise in the development of the plan. The utility shall chair each advisory group.
- c. These The member entities shall include the state and county agencies and environmental, cultural, business, and community interest groups. An advisory group should be representative of as broad a spectrum of interests as possible, subject to the limitation that the interests represented should not be so numerous as to make deliberations as a group unwieldy.
- d. The utility shall consider and incorporate the input of each the advisory group; but the utility is not bound to follow the advice of any advisory group in the development of the planning scenarios and action plan where appropriate.
- e. All data reasonably necessary for an the advisory group to participate in the utility's integrated resource planning process shall be provided by the utility, subject to the need to protect the confidentiality of customer-specific and proprietary information.
- e. The use by the advisory groups of the collaborative process is encouraged to arrive at a consensus on issues.
- participants in the technical working groups or advisory groups (other than governmental agencies) shall be paid for by the utility, subject to recovery as part of the utility's cost of integrated resource planning. The type of out-of-pocket costs and the amount paid by the utility to each participant shall be subject to commission approval.

2.3. Public hearings Information Meetings

a. The utility is encouraged to shall conduct public hearings or provide public forums

informational meetings or webinars at the various, discrete phases of the planning process for the purpose of securing the input of those members of the public who are not represented by entities constituting advisory groups.

b. Upon the filing of requests for approval of an integrated resource plan or projects the utility's planning scenarios and action plan, the commission may, and it shall where required by statute, conduct public hearings for the purpose of securing public input on the utility's proposal filing. The commission may also conduct such informal public meetings as it deems advisable.

3.4. Intervention

- a. Upon the filing of its integrated resource action plan, the utility shall cause to be published in a newspaper of general circulation in the State a notice informing the general public that the utility has filed its proposed integrated resource plan with the commission for the commission's approval.
- b. To encourage public awareness of the filing of a proposed utility plan, a copy of the proposed plan and the supporting analysis shall be available for public review at the commission's office and at the office of the commission's representative in the county serviced by the utility. In the case of Maui Electric Company, Limited, the utility shall also make a copy of its proposed plan and the supporting analysis available at a public library on each of the islands of Molokai and In the case of Hawaii Electric Light Company, Inc., the utility shall also make a copy of its proposed plan and the supporting analysis available at a public library in Each utility shall note the availability of the documents for public review at these locations in its published notice. The utility shall make copies of the executive summary of the plan and the analysis available to the general public at no cost, except the cost of duplication. Also place the plan documents on its website.

- e.b. Applications to intervene or to participate without intervention in any proceeding in which a utility seeks commission approval of its integrated resource action plan are subject to the rules prescribed in part IV of the commission's General Order No.1 (Practice and Procedure before the Public Utilities Commission); except that such applications may be filed with the commission not later than 20 days after the publication by the utility of a notice informing the general public of the filing of the utility's application for commission approval of its integrated resource plan, notwithstanding the opening of the docket before such publication.
- d. A person's status as an intervenor or participant shall continue through the life of the docket, unless the person voluntarily withdraws or is dismissed as an intervenor or participant by the commission for cause.

4.5. Intervenor funding

- a. Upon the issuance of the commission's final order on a utility's integrated resource action plan or any amendment to the plan, the commission may grant an intervenor or participant (other than a governmental agency, a for-profit entity, and an association of for-profit entities) recovery of all or part of the intervenor's or participant's direct out-of-pocket costs reasonably and necessarily incurred in intervention or participation. Any recovery and the amount of such recovery are in the sole discretion of the commission.
- b. To be eligible for such recovery:
 - (1) The intervenor or participant must show a need for financial assistance;
 - (2) The intervenor or participant must demonstrate that it has made reasonable efforts to secure funding elsewhere, without success;

- (3) The intervenor or participant must maintain accurate and meaningful books of account on the expenditures incurred; and
- (4) The commission must find that the intervenor or participant made a substantial contribution in assisting the commission in arriving at its decision.
- c. The intervenor's or participant's books of account are subject to audit, and the commission may impose other requirements in any specific case.
- d. Such allowance may be made only upon the application of the intervenor or participant within 20 days after the issuance of the commission's final order, together with justification and documented proof of the costs incurred.
- e. The costs of intervenor funding shall be paid for by the utility, subject to recovery as part of its costs of integrated resource planning.

[CTYS]

E. Public Participation

To maximize public participation in each utility is integrated resource planning process, opportunities for such participation shall be provided through advisory groups to the utility, public hearings, and interventions in formal proceedings before the commission.

- 1. Advisory groups
 - a. The utility commission shall organize in each county in which the utility provides service or conducts utility business a group or groups of representatives of public and private entities to advise the provide independent review and input to each utility and the commission in the development of its integrated resource plan. A separate planning process. Different advisory groups or committees within an advisory group may be formed for each stage of different issues related to the planning process, as

Comment [LA40]: Haiku Design and Analysis comments that it has concerns with this section. See Attachment B, pp. 7-8 of HDA's Final Statement of Position.

- appropriate. The utility shall chair each advisory group.
- b. An independent facilitator appointed by the commission shall chair each advisory group. The costs of the independent facilitator shall be paid for by the utility, subject to recovery as part of its costs of integrated resource planning. The commission, by its staff or one or more commissioners, may participate in advisory group meetings to receive input from advisory group members.
- c. The membership of each advisory group shall be independent of any utility and be able to provide significant perspective or useful expertise in the development of the utility's integrated resource plan. The commission shall establish the membership of each advisory group as follows:
 - (1) Governmental members of each advisory group shall include, at minimum, the Consumer Advocate or the Consumer Advocate's designee, the director of the State of Hawai'i Department of Business, Economic Development & Tourism or the director's designee, and the mayor of the county in which the utility in question provides service or conducts utility business or the mayor's designee.
 - (2) Nongovernmental members shall include representatives of environmental, cultural, business, consumer, and community interests, and individuals with useful expertise in each county in which the utility provides service or conducts utility business.
 - (3) Parties admitted into the integrated resource planning docket shall be allowed to participate as advisory group members, as the commission deems appropriate.
 - (4) b. The public and private entities includable in an advisory group are those that represent interests that are affected by the utility's integrated resource plan and that can provide significant

Comment [LA41]: HREA believes that industry, such as the renewable energy industry, should be listed as eligible for Advisory Group membership. perspective or useful expertise in the development of the plan. These entities include state and county agencies and environmental, cultural, business, and community interest groups. An advisory group should Each advisory group shall be representative of as broad a spectrum of interests as possible, subject to the limitation that the interests represented should not be so numerous as to make deliberations as a group unwieldy.

- e. The utility shall consider the input of each advisory group; but the utility is not bound to follow the advice of any advisory group.
- d. Each advisory group shall hold meetings during key phases of a utility's integrated resource planning process, with a minimum of quarterly meetings and more frequent meetings to the extent meaningful and practical.
- e. If a utility is considering the use of an energy resource located in another utility's service territory, then that utility shall confer with the advisory group representing the service territory of the energy resource under consideration.
- f. d. All Each utility shall provide all data reasonably necessary for an advisory group to participate in the that utility's integrated resource planning process shall be provided by the utility, subject to the need to protect the confidentiality of customer-specific and proprietary information.
- An advisory group participating in a utility's integrated resource planning process, or qualified person(s) representing the advisory group, shall be permitted to inspect and evaluate that utility's modeling, including but not limited to reviewing the inputs the utility has used for the modeling.
- h. Upon request from an advisory group, the Consumer Advocate, the State of Hawai'i Department of Business, Economic Development & Tourism, or a county represented in the

advisory group, the utility shall use its modeling tools to run alternative scenarios based on alternate assumptions. At the utility's request, the commission may limit requests that are unduly repetitious or burdensome.

- i. The Public Benefits Fee Administrator shall provide all data reasonably necessary for an advisory group to participate in developing and evaluating forecasts of energy efficiency programs.
- e-j. The use by the advisory groups of the collaborative process is encouraged to arrive at a consensus on issues. regarding recommendations or findings on issues. If consensus is not possible, recommendations or findings of an advisory group may be made by the vote of not less than the majority of the entire membership of that advisory group.
- k. If a utility does not follow a recommendation or finding of an advisory group, it must provide to the advisory group and file with the commission a detailed justification why the recommendation or finding should not be adopted. The advisory group and/or its members shall have an opportunity to respond to the filing.
- 1. At any point during the integrated resource planning process, an advisory group or one or more of its members may request interim relief from the commission to resolve a significant dispute with the utility in the implementation of the planning process. Such a request will be handled as an informal complaint under the commission's rules.
- All reasonable out-of-pocket costs incurred by participants in the members of the advisory groups (other than governmental agencies) participating in a utility's integrated resource planning process shall be paid for by the that utility, subject to recovery as part of the that utility's cost of integrated resource planning.
- 2. Public hearings input

- a. The Each utility is encouraged to conduct public hearings meetings or provide public forums at the various, discrete phases of the planning process for the purpose of securing the input of those members of the public who are not represented by entities constituting advisory groups. public input.
- b. Prior to filing a request for approval of an integrated resource plan, each utility shall provide an opportunity for public review and comment on the proposed plan during a period of not less than sixty (60) days. During each such public comment period, the utility shall hold at least one public hearing on each island that would be affected by the proposed integrated resource plan at which the public will have the chance to ask questions, seek clarification, raise concerns, and make comments and suggestions.
- c. Each utility preparing an integrated resource plan shall assess and consider comments received during the public review and comment period and shall respond by one or more of the means listed below, stating its response in the request for approval filed with the commission:
 - (1) Modify the plan;
 - (2) Develop and evaluate alternatives not previously given serious consideration by the utility;
 - (3) Supplement, improve, or modify its analysis;
 - (4) Make factual corrections; and/or
 - (5) Explain why the comments do not warrant further response, citing the sources, authorities, or reasons that support the utility's position and, if appropriate, indicate those circumstances that would trigger utility reappraisal or further response.
- b.d. Upon the filing of requests for approval of an integrated resource plan—or projects, the commission may, and it shall where required by

statute, conduct public hearings for the purpose of securing <u>additional_public</u> input on the utility's proposal. The commission may also conduct such informal public meetings as it deems advisable.

3. Intervention

- a. Upon the filing of its integrated resource plan, the utility shall cause to be published in a newspaper of general circulation in the State a notice informing the general public that the utility has filed its proposed integrated resource plan with the commission for the commission—'s approval. The commission—and the utility shall also post such public notice online on their respective websites.
- To encourage public awareness of the filing of b. a proposed utility plan, a copy of the proposed plan and the supporting analysis shall be available for public review at the commission 's office and at the office of the commission's representative in the county serviced by the utility. In the case of Maui Electric Company, Limited, the utility shall also make a copy of its proposed plan and the supporting analysis available at a public library on each of the islands of Molokai and Lanai. In the case of Hawaii Electric Light Company, Inc., the utility shall also make a copy of its proposed plan and the supporting analysis available at a public library in Kona The commission and the utility shall provide electronic copies of these documents online on their respective websites. Each utility shall note the availability of the documents for public review at these locations in its published notice. The utility shall make copies of the executive summary of the plan and the analysis available to the general public at no cost, except the cost of duplication.
- c. Applications to intervene or to participate without intervention in any proceeding in which a utility seeks commission approval of its integrated resource plan are subject to the rules prescribed in part IV of the commission—'s General Order No.1 (Practice and Procedure before the Public Utilities

Commission); except that such applications may be filed with the commission not later than 20 days after the publication by the utility of a notice informing the general public of the filing of the utility's application for commission approval of its integrated resource plan, notwithstanding the opening of the docket before such publication.

d. A person's status as an intervenor or participant shall continue through the life of the docket, unless the person voluntarily withdraws or is dismissed as an intervenor or participant by the commission for cause.

4. Intervenor funding

- order on a utility—'s integrated resource plan or any amendment to the plan, the commission may grant an intervenor or participant (other than a governmental agency, a for-profit entity, and an association of for-profit entities) recovery of all or part of the intervenor—'s or participant—'s direct out-of-pocket costs reasonably and necessarily incurred in intervention or participation. Any recovery and the amount of such recovery are in the sole discretion of the commission.
- b. To be eligible for such recovery:
 - (1) The intervenor or participant must show a need for financial assistance;
 - (2) The intervenor or participant must demonstrate that it has made reasonable efforts to secure funding elsewhere, without success;
 - (3)(2) The intervenor or participant must maintain accurate and meaningful books of account on the expenditures incurred; and
 - (4)(3) The commission must find that the intervenor or participant made a substantial contribution in assisting the commission in arriving at its decision.

Comment [LA42]: HREA comments that association of for-profit companies should be excluded from access to Intervenor Funding.

- c. The intervenor 's or participant's books of account are subject to audit, and the commission may impose other requirements in any specific case.
- d. Such allowance—recovery may be made only provided upon the application of the intervenor or participant within 20-30 days after the issuance of the commission. Is final order (or the entry of a settlement between the parties), together with justification and documented proof of the costs incurred.
- e. The commission may provide for recovery via periodic installments during the course of a proceeding. To be eligible for this option, the intervenor or participant shall file a notice of intent to seek recovery and an estimated budget within 30 days after being granted intervention or participation. The intervenor or participant may thereafter make periodic applications for recovery during the proceeding, within the final deadline specified above. The intervenor or participant may request to revise the estimated budget as appropriate.
- e.f. The costs of intervenor funding shall be paid for by the utility, subject to recovery as part of its costs of integrated resource planning.

[KIUC]

E. Public Participation

To maximize public participation in each utility's integrated resource planning process, opportunities for such participation shall be provided through advisory groups to the utility, public hearings, and interventions in formal proceedings before the commission.

1. Advisory groups

a. The utility shall organize in each county in which the utility provides service or conducts utility business a group or groups of representatives of public and private entities to advise the utility in the development of

- its integrated resource plan. A separate advisory group may be formed for each stage of the planning process, as appropriate. The utility shall chair each advisory group.
- b. The public and private entities includable in an advisory group are those that represent interests that are affected by the utility's integrated resource plan and that can provide significant perspective or useful expertise in the development of the plan. These entities include state and county agencies and environmental, cultural, business, and community interest groups. An advisory group should be representative of as broad a spectrum of interests as possible, subject to the limitation that the interests represented should not be so numerous as to make deliberations as a group unwieldy.
- c. For a member-owned utility cooperative, the advisory group shall include at least one representative of the membership's Board of Directors, or a representative of the membership selected by the Board of Directors.
- d. The utility shall consider the input of each advisory group; but the utility is not bound to follow the advice of any advisory group.
- e. All data reasonably necessary for an advisory group to participate in the utility's integrated resource planning process shall be provided by the utility, subject to the need to protect the confidentiality of customer-specific and proprietary information.
- f. The use by the advisory groups of the collaborative process is encouraged to arrive at a consensus on issues.
- g. All reasonable out-of-pocket costs incurred by participants in advisory groups (other than governmental agencies) shall be paid for by the utility, subject to recovery as part of the utility's cost of integrated resource planning.

2. Public hearings

a. The utility is encouraged to conduct public hearings or provide public forums at the various, discrete phases of the planning process for the purpose of securing the input of those members of the public who are not otherwise represented.

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b. Upon the filing of requests for approval of the action plan or its associated projects, the commission may, and it shall where required by statute, conduct public hearings for the purpose of securing public input on the utility's proposal. The commission may also conduct such informal public meetings as it deems advisable.

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3. Intervention

a. Upon the filing of its integrated resource plan, the utility shall cause to be published in a newspaper of general circulation in the State a notice informing the general public that the utility has filed its proposed integrated resource plan and has sought approval of its 5-year action plan contained therein from the commission.

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To encourage public awareness of the filing of a proposed utility plan, a copy of the entire plan and the supporting analysis shall public review available for at commission's office and at the office of the commission's representative in the county serviced by the utility. In the case of Maui Electric Company, Limited, the utility shall also make a copy of its proposed plan and the supporting analysis available at a public library on each of the islands of Molokai and In the case of Hawaii Electric Light Company, Inc., the utility shall also make a copy of its proposed plan and the supporting analysis available at a public library in Each utility shall note availability of the documents for public review at these locations in its published notice. The utility shall make copies of the executive summary of the plan and the analysis available to the general public at no cost, except the cost of duplication.

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Applications to intervene or to participate C. without intervention in any proceeding in which a utility seeks commission approval of the 5-year action plan contained within its integrated resource plan are subject to the rules prescribed in Hawaii Administrative Rules, Chapter 6-61 (Rules of Practice and the Public Procedure before Utilities Commission); except that such applications may be filed with the commission not later than 20 days after the publication by the utility of a notice informing the general public of the filing of the utility's application for commission approval of its integrated resource plan, notwithstanding the opening of the docket before such publication.

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d. A person's status as an intervenor or participant shall continue through the life of the docket, unless the person voluntarily withdraws or is dismissed as an intervenor or participant by the commission for cause.

4. Intervenor funding

a. Upon the issuance of the commission's final order on a utility's 5-year action plan contained within its integrated resource plan or any amendment thereto, the commission may grant an intervenor or participant (other than a governmental agency, a for-profit entity, and an association of for-profit entities) recovery of all or part of the intervenor's or participant's direct out-of-pocket costs reasonably and necessarily incurred in intervention or participation. Any recovery and the amount of such recovery are in the sole discretion of the commission.

b. To be eligible for such recovery:

- (1) The intervenor or participant must show a need for financial assistance;
- (2) The intervenor or participant must demonstrate that it has made reasonable efforts to secure funding elsewhere, without success;

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- (3) The intervenor or participant must maintain accurate and meaningful books of account on the expenditures incurred; and
- (4) The commission must find that the intervenor or participant made a substantial contribution in assisting the commission in arriving at its decision.
- c. The intervenor's or participant's books of account are subject to audit, and the commission may impose other requirements in any specific case.
- d. Such allowance may be made only upon the application of the intervenor or participant within 20 days after the issuance of the commission's final order, together with justification and documented proof of the costs incurred.
- e. The costs of intervenor funding shall be paid for by the utility, subject to recovery as part of its costs of integrated resource planning.

[MARRIOTTS]

E. Public Participation

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To encourage public participation in each utility's clean energy scenario planning process, opportunities for such participation shall be provided through advisory committees to the utility, public hearings, and interventions in formal proceedings before the Commission.

1. Advisory Committees

a. The utility shall organize in each county in which the utility provides service or conducts utility business a group or groups of representatives of public and private entities, designated as advisory committees, to provide input to the utility and the PBF Administrator in the development of its CESP. The utility shall chair each advisory committee. The advisory committees shall include

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representatives from each of the customer classes of the utility, county and state agencies, conservation groups, commercial entities that provide equipment, and other entities with a legitimate interest. Any entity desiring to participate in an advisory committee shall notify the utility in writing and shall be included as a member of the advisory committee. In the event that more than one entity representing the same or a substantially similar interest becomes a member of an advisory committee, one such advisory committee member shall be selected by the other members to participate on behalf of that interest.

The utility shall have the initial responsibility to form the advisory committee. Any entity with a legitimate interest in the proceeding that desires to participate in the CESP process as an advisory committee member shall be automatically granted the right to participate in the advisory committee. If more than one entity representing a particular interest with respect to a particular utility become members of an advisory committee, those entities shall select one entity to be their designated representative. The designated representative shall represent the joint interests in any advisory group meetings.

- b. The public and private entities includable in an advisory committee are those that represent interests that are affected by the utility's CESP scenarios and that can provide significant perspective or useful expertise in the development of the scenarios. An advisory committee should be representative of as broad a spectrum of interests as possible.
- c. The utility shall hold meetings with the advisory committee during key phases of the process with a minimum quarterly participation to the extent meaningful and practical. The PBF Administrator shall attend meetings to support their forecast of energy efficiency programs.
- d. The utility shall consider the input of each advisory committee; but the utility is not bound to follow the advice of any advisory committee.

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Formatted: Font: (Default) Courier New, 12 pt, Font color: Red, Not Highlight The utility shall state its reasons for rejecting a particular proposal and advisory committee members are permitted to file any objections that they have with the Commission.

e. All data reasonably necessary for an advisory committee to participate in the utility's clean energy scenario planning process shall be provided by the utility, subject to the need to protect the confidentiality of customer-specific

and proprietary information.

f. The use by the advisory committees of the collaborative process is encouraged to arrive at a consensus on issues.

g. All reasonable out-of-pocket costs incurred by participants in advisory committees (other than governmental agencies) shall be paid for by the utility, subject to recovery as part of the utility's cost of clean energy scenario planning. Marriotts Comment: This section requires clarification - precisely what costs are contemplated here?

2. Public hearings

- a. The utility is encouraged to conduct public meetings or provide public forums at the various, discrete phases of the planning process for the purpose of securing the input of those members of the public.
- b. Upon the filing of requests for approval of a CESP Action Plan, the Commission may, and it shall where required by statute, conduct public hearings for the purpose of securing public input on the utility's proposal. The Commission may also conduct such informal public meetings as it deems advisable.

3. Intervention

a. Upon the filing of its CESP, the utility shall cause to be published in a newspaper of general circulation in the State a notice informing the general public that the utility has filed its proposed CESP Action Plan with the Commission for the Commission's approval. The utility

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shall post on its website, on the same date as any such filing is filed with the Commission, a copy of the filing in downloadable, PDF format under the heading "CESP And Related Filings And Orders." The utility shall simultaneously post the docket number assigned to the filing by the Commission.

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b. To encourage public awareness of the filing of the CESP, a copy of the CESP Action Plan and the supporting analysis shall be available for public review at the Commission's office and at the office of the Commission's representative in the county serviced by the utility. The utilities shall provide copies of these documents online on its website. Each utility shall note the availability of the documents for public review at these locations in its published notice. The utility shall make copies of the executive summary of the plan and the analysis available to the general public at no cost, except the cost of duplication.

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c. Applications to intervene or to participate without intervention in any proceeding in which a utility seeks Commission approval of its CESP Action Plan are subject to the rules prescribed in Hawaii Administrative Rules, Chapter 6-61 (Rules of Practice and Procedure before the Public Utilities Commission and any order issued by the Commission regarding same.

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- d. An advisory committee that has provided input on any issue addressed in a utility's filing shall be designated as an intervenor in any proceeding instituted by the Commission to address that filing. The utility shall inform the Commission of any such advisory committee in its initial filing.
- e. A person's status as an intervenor or participant shall continue through the life of the docket, unless the person voluntarily withdraws or is dismissed as an intervenor or participant by the Commission for cause.
- 4. Intervenor funding

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- a. Upon the issuance of the Commission's final order on a utility's CESP Action Plan or any amendment to the CESP Action Plan, the Commission may grant an intervenor or participant (other than a governmental agency, a for-profit entity, and an association of forprofit entities) recovery of all or part of the intervenor's or participant's direct out-ofpocket costs reasonably and necessarily incurred in intervention or participation. Any recovery and the amount of such recovery are in the sole discretion of the Commission. All intervenors and participants (who plan to seek intervenor funding) must file a budget with the Commission within 30 days after intervention is granted, setting forth:
 - the estimated cost of intervention or participation;
 - (2) the level of funding expected to be funded from other sources; and
 - (3) the net amount expected to be recovered from utility ratepayers.
- b. To be eligible for such recovery:
 - (1) The intervenor or participant must show a need for financial assistance;
 - (2) The intervenor or participant must demonstrate that it has made reasonable efforts to secure funding elsewhere, without success;
 - (3) The intervenor or participant must maintain accurate and meaningful books of account on the expenditures incurred; and
 - (4) The Commission must find that the intervenor or participant made a substantial contribution in assisting the Commission in arriving at its decision.
- c. The intervenor's or participant's books of account are subject to audit, and the Commission may impose other requirements in any specific case.

- d. Such allowance may be made only upon the application of the intervenor or participant within 20 days after the issuance of the Commission's final order, together with justification and documented proof of the costs incurred.
- e. The costs of intervenor funding shall be paid for by the utility, subject to recovery as part of its costs of clean energy scenario planning.

- F. Cost Recovery and Incentives
 - 1. The utility is entitled to recover its integrated resource clean energy scenario planning and implementation costs that are reasonably incurred, including the costs of planning and implementing pilot and full-scale demand-side management programs.
 - a. The cost recovery may be had through the following mechanisms:
 - Base rate recovery--the inclusion (1)costs in the utility's base rate during each rate case. A balancing account may be appropriate in this instance to reconcile, with interest, the utility's recovered expenditures with its actual expenditures. It may also be appropriate to consider the utility's underexpenditure of authorized cost to limit recovery, unless program objectives are met or exceeded The utility shall record costs associated with the clean energy scenario planning in separate accounts to allow review of the actual costs incurred to the forecasted costs presented in each rate case.
 - (2) Adjustment clause--the recovery of costs incurred between rate cases in excess of the baseline integrated resource planning-related costs that are included in the utility's base rates.
 - (3) Ratebasing-the inclusion of costs that are capital in character (i.e., expenditures considered to produce long-term savings or benefits, such as appliance rebates, loans, etc.), with accumulated AFUDC, in the utility's rate base at its next rate case. The costs are to be amortized over a period set by the commission.
 - (4) (3) Escrow accounting-the accumulation, with interest, of costs, not capital in character, incurred between rate cases

and not otherwise recovered through the utility's base rates, adjustment clause, or rate base, in a deferred account, to be amortized over a period set by the commission.

- b. The commission will determine the appropriate mechanism for the recovery of costs associated with demand-side management programs when specific demand-side management programs are submitted for commission approval. Cost recovery for other integrated resource CESP programs generally will be addressed in each utility's rate case.
- 2. Under appropriate circumstances, the utility may recover the net loss in revenues sustained by the utility as a result of successful implementation of full-scale demand-side management programs sponsored or instituted by the utility.
 - a. The net revenue loss is the revenue lost less the variable fuel and operating expenses saved by the utility as a result of not having to generate the unsold energy.
 - b. The commission will determine whether the utility will be permitted to recover the net revenues lost as a result of successful implementation of a full-scale demand-side management program and the form of the recovery mechanism. The determination will be made when an application is filed for approval of the demand-side management program.
- Junder appropriate circumstances, the commission may provide the utility PBF Administrator with incentives to encourage participation in and promotion of full-scale demand-side management energy efficiency programs.
 - a. The incentives may take any form approved by the commission. Among the possible forms are:
 - (1) Granting the utility PBF Administrator a percentage share of the gross or net benefits attributable to demand—side management energy efficiency programs (shared savings).

- (2) Granting the utility PBF Administrator a percentage of certain specific expenditures it makes in demand-side management energy efficiency programs (mark-up).
- (3) Allowing the utility to earn a greater than normal return on equity for ratebased demand-side management expenditures (rate base bonus).
- (4) Adjusting the utility's overall return on equity in response to quantitative or qualitative evaluation of demand-side management program performance (e.g., adjusting the return upward for achieving a certain level of kilowatt or kilowatt-hour savings) (ROE adjustment).
- b. The commission will determine whether the utility PBF Administrator will be provided with incentives and the form of such incentives, if any, when specific demand-side management energy efficiency programs are submitted for approval. The utility PBF Administrator may propose incentive forms for a particular program, based on the particular attributes of the program and the results to be attained.
- c. The commission may terminate any and all incentives whenever circumstances or conditions warrant such termination.

[DBEDT]

F. Cost Recovery and Incentives

- 1. The utility is entitled to recover its integrated resource planning and implementation costs that are prudent and reasonably incurred, including the costs of planning and implementing pilot and full-scale demand-side management programs and which are incremental to the utility's normal costs of doing business.
- 2. The utility's program applications for each strategy, resource, or program included in the action plan shall include the estimated costs and

proposed cost recovery method. The cost recovery method shall be as determined and approved by the commission.

- a. The cost recovery may be had through the following mechanisms:
 - (1) Base rate recovery-the inclusion of costs in the utility's base rate during each rate case. A balancing account may be appropriate in this instance to reconcile, with interest, the utility's recovered expenditures with its actual expenditures. It may also be appropriate to consider the utility's underexpenditure of authorized cost to limit recovery, unless program objectives are met or exceeded.
 - (2) Adjustment clause--the recovery of costs incurred between rate cases in excess of the baseline integrated resource planning-related costs that are included in the utility's base rates.
 - (3) Ratebasing-the inclusion of costs that are capital in character (i.e., expenditures considered to produce long-term savings or benefits, such as appliance rebates, loans, etc.), with accumulated AFUDC, in the utility's rate base at its next rate case. The costs are to be amortized over a period set by the commission.
 - (4) Escrow accounting-the accumulation, with interest, of costs, not capital in character, incurred between rate cases and not otherwise recovered through the utility's base rates, adjustment clause, or rate base, in a deferred account, to be amortized over a period set by the commission.
- b. The commission will determine the appropriate mechanism for the recovery of costs associated with demand-side management programs when specific demand-side management programs are submitted for commission approval. Cost recovery for other integrated resource

programs generally will be addressed in each
utility's rate case.

- 2. Under appropriate circumstances, the utility may recover the net loss in revenues sustained by the utility as a result of successful implementation of full-scale demand-side management programs sponsored or instituted by the utility.
 - a. The net revenue loss is the revenue lost less the variable fuel and operating expenses saved by the utility as a result of not having to generate the unsold energy.
 - b. The commission will determine whether the utility will be permitted to recover the net revenues lost as a result of successful implementation of a full-scale demand-side management program and the form of the recovery mechanism. The determination will be made when an application is filed for approval of the demand-side management program.
- 3. Under appropriate circumstances, the commission may provide the utility with incentives to encourage participation in and promotion of full-scale demand-side management programs.
 - a. The incentives may take any form approved by the commission. Among the possible forms are:
 - (1) Granting the utility a percentage share of the gross or net benefits attributable to demand-side management programs (shared savings).
 - (2) Granting the utility a percentage of certain specific expenditures it makes in demand-side management programs (mark-up).
 - (3) Allowing the utility to earn a greater than normal return on equity for ratebased demand-side management expenditures (rate base bonus).
 - (4) Adjusting the utility's overall return on equity in response to quantitative or qualitative evaluation of demand-side management program performance (e.g.,

adjusting the return upward for achieving a certain level of kilowatt or kilowatt-hour savings) (ROE adjustment).

- b. The commission will determine whether the utility will be provided with incentives and the form of such incentives, if any, when specific demand-side management programs are submitted for approval. The utility may propose incentive forms for a particular program, based on the particular attributes of the program and the results to be attained.
- c. The commission may terminate any and all incentives whenever circumstances or conditions warrant such termination.

[CTYS]

F. Cost Recovery and Incentives

- 1. The utility is entitled to recover its integrated resource planning and implementation costs that are reasonably incurred, including the costs of planning and implementing pilot and full-scale demand-side management programs.
 - a. The cost recovery may be had through the following mechanisms:
 - (1) Base rate recovery—the inclusion of costs in the utility's base rate during each rate case. A balancing account may be appropriate in this instance to reconcile, with interest, the utility's recovered expenditures with its actual expenditures. It may also be appropriate to consider the utility's under-expenditure of authorized cost to limit recovery, unless program objectives are met or exceeded.
 - (2) Adjustment clause—the recovery of costs incurred between rate cases in excess of the baseline integrated resource planning—related costs that are included in the utility's base rates.

- (3) Ratebasing-the inclusion of costs that are capital in character (i.e., expenditures considered to produce long-term savings or benefits, such as appliance rebates, loans, etc.), with accumulated AFUDC, in the utility's rate base at its next rate case. The costs are to be amortized over a period set by the commission.
- (4) Escrow accounting—the accumulation, with interest, of costs, not capital in character, incurred between rate cases and not otherwise recovered through the utility's base rates, adjustment clause, or rate base, in a deferred account, to be amortized over a period set by the commission.
- b. The commission will determine the appropriate mechanism for the recovery of costs associated with demand-side management programs when specific demand-side management programs are submitted for commission approval. Cost recovery for other integrated resource programs generally will be addressed in each utility's rate case.
- 2. Under appropriate circumstances, the utility may recover the net loss in revenues sustained by the utility as a result of successful implementation of full-scale demand-side management programs sponsored or instituted by the utility.
 - a. The net revenue loss is the revenue lost less the variable fuel and operating expenses saved by the utility as a result of not having to generate the unsold energy.
 - b. The commission will determine whether the utility will be permitted to recover the net revenues lost as a result of successful implementation of a full-scale demand-side management program and the form of the recovery mechanism. The determination will be made when an application is filed for approval of the demand-side management program.
- 3. Under appropriate circumstances, the commission may provide the utility with incentives to encourage

participation in and promotion of full-scale demand-side management programs.

- a. The incentives may take any form approved by the commission. Among the possible forms are:
 - (1) Granting the utility a percentage share of the gross or net benefits attributable to demand-side management programs (shared savings).
 - (2) Granting the utility a percentage of certain specific expenditures it makes in demand-side management programs (mark-up).
 - (3) Allowing the utility to earn a greater than normal return on equity for ratebased demand-side management expenditures (rate base bonus).
 - (4) Adjusting the utility's overall return on equity in response to quantitative or qualitative evaluation of demand-side management program performance (e.g., adjusting the return upward for achieving a certain level of kilowatt or kilowatt-hour savings) (ROE adjustment).
- b. The commission will determine whether the utility will be provided with incentives and the form of such incentives, if any, when specific demand-side management programs are submitted for approval. The utility may propose incentive forms for a particular program, based on the particular attributes of the program and the results to be attained.
- c. The commission may terminate any and all incentives whenever circumstances or conditions warrant such termination.

[KIUC]

- F. Cost Recovery and Incentives
 - The utility is entitled to recover its integrated resource planning and implementation costs that are reasonably incurred, including the costs of

planning and implementing pilot and full-scale demand-side management programs.

- a. The cost recovery may be had through the following mechanisms:
 - (1) Base rate recovery—the inclusion of costs in the utility's base rate during each rate case. A balancing account may be appropriate to reconcile, with interest, the utility's recovered expenditures with its actual expenditures. It may also be appropriate to consider the utility's under—expenditure of authorized cost to limit recovery, unless program objectives are met or exceeded.

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- (2) Adjustment clause—the recovery of costs incurred between rate cases in excess of the baseline integrated resource planning—related costs that are included in the utility's base rates.
- (3) Ratebasing—the inclusion of costs that are capital in character (i.e., expenditures considered to produce long—term savings or benefits, such as appliance rebates, loans, etc.), with accumulated AFUDC, in the utility's rate base at its next rate case. The costs are to be amortized over a period set by the commission.
- (4) Escrow accounting—the accumulation, with interest, of costs, not capital in character, incurred between rate cases and not otherwise recovered through the utility's base rates, adjustment clause, or rate base, in a deferred account, to be amortized over a period set by the commission.
- b. The commission will determine the appropriate mechanism for the recovery of costs associated with demand-side management programs when specific demand-side management programs are submitted for commission approval. Cost recovery for other integrated resource programs generally will be addressed in each utility's rate case.

- 2. Under appropriate circumstances, the utility may recover the net loss in revenues sustained by the utility as a result of successful implementation of full-scale demand-side management programs sponsored or instituted by the utility.
 - a. The net revenue loss is the revenue lost less the variable fuel and operating expenses saved by the utility as a result of not having to generate the unsold energy.
 - b. The commission will determine whether the utility will be permitted to recover the net revenues lost as a result of successful implementation of a full-scale demand-side management program and the form of the recovery mechanism. The determination will be made when an application is filed for approval of the demand-side management program.
- 3. Under appropriate circumstances, the commission may provide the utility with incentives to encourage participation in and promotion of full-scale demand-side management programs.
 - a. The incentives may take any form approved by the commission. Among the possible forms are:
 - (1) Granting the utility a percentage share of the gross or net benefits attributable to demand-side management programs (shared savings).
 - (2) Granting the utility a percentage of certain specific expenditures it makes in demand-side management programs (markup).
 - (3) Allowing the utility to earn a greater than normal return on equity for ratebased demand-side management expenditures (rate base bonus).
 - (4) Adjusting the utility's overall return on equity in response to quantitative or qualitative evaluation of demand-side management program performance (e.g., adjusting the return upward for achieving a certain level of kilowatt or kilowatt-hour savings) (ROE adjustment).

- b. The commission will determine whether the utility will be provided with incentives and the form of such incentives, if any, when specific demand-side management programs are submitted for approval. The utility may propose incentive forms for a particular program, based on the particular attributes of the program and the results to be attained.
- c. The commission may terminate any and all incentives whenever circumstances or conditions warrant such termination.

[MARRIOTTS]

1.

F. Cost Recovery and Incentives

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The utility is entitled to recover its clean energy scenario planning and implementation costs that are reasonably incurred, including the costs of planning and implementing pilot and full-scale utility demand-side management programs, as determined by the Public Utilities Commission of the State of Hawaii after an appropriate filing and hearing.

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a. Any cost recovery may only be, as authorized by the Public Utilities Commission of the State of Hawaii after an appropriate filing and hearing. Requested cost recovery mechanisms may include, but are not limited to:

- (1) Base rate recovery—the inclusion of costs in the utility's base rate during each rate case. The utility shall record costs associated with the clean energy scenario planning in separate accounts to allow review of the actual costs incurred to the forecasted costs presented in each rate case.
- (2) Ratebasing—the inclusion of costs that are capital in character (i.e., expenditures considered to produce long—term savings or benefits, such as appliance rebates, loans, etc.), with accumulated AFUDC, in the utility's rate base at its next rate case. The costs are to be amortized over a period set by the Commission.

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- (3) Escrow accounting—the accumulation, with interest, of costs, not capital in character, incurred between rate cases and not otherwise recovered through the utility's base rates, adjustment clause, or rate base, in a deferred account, to be amortized over a period set by the Commission.
- b. The Commission will determine the appropriate mechanism for the recovery of costs associated with demand-side management programs when specific demand-side management programs are submitted for Commission approval. Cost recovery for other CESP programs generally will be addressed in each utility's rate case.

Deleted: <#>Under appropriate circumstances, the Commission may provide the PBF Administrator with incentives to encourage participation in and promotion of full-scale energy efficiency programs. <#>The incentives may take any form approved by the Commission. Among the possible forms are: ¶ <#>Granting the PBF Administrator a percentage share of the gross or net benefits attributable to energy efficiency programs (shared savings). ¶ <#>Granting the PBF Administrator a percentage of certain specific expenditures it makes in energy efficiency programs (mark-up).¶ <#>The Commission will determine whether the PBF Administrator will be provided with incentives and the form of such incentives, if any, when specific energy efficiency programs are submitted for approval. The PBF Administrator may propose incentive forms for a particular program, based on the particular attributes of the program and the results to be attained. 9 <#>The Commission may terminate any and all incentives whenever

circumstances or conditions warrant such termination. ¶

[HECO Cos]

A. Forecast Energy and Demand Forecasts

- The utility shall develop a range of forecasts 1. of the amount of energy consumers will need and the expected annual peak demand over the planning horizon. It shall develop load forecasts for multiple a reasonable number of scenarios that are developed as necessary or appropriate in the development of integrated resource plan CESP scenarios. Among the scenarios are the base case scenario (a scenario based on the most likely assumptions), a high-growth scenario, and a low-growth scenario. The utility may retain expert consultants to assist in the development an economic outlook and for specialized and technical needs related to this purpose.
- 2. Each forecast shall identify the significant demand and use determinants; describe the data, the assumptions (including assumptions about fuel prices, energy prices, economic conditions, demographics, population growth, technological improvements, and end-use), and the analysis upon which the forecast is based; indicate the relative sensitivity of the forecast result to changes in assumptions and varying conditions; and describe the procedures, methodologies, and models used in the forecast, together with the rationale underlying the use of such procedures, methodologies, and models.
- 3. Among the data to be considered are historical data on energy sales, peak demand, system load factor, system peaks, and such other data of sufficient duration to provide a reasonable basis for the utility's estimates of future demand.
- 4. As feasible and appropriate, the forecast shall be by the system as a whole and by customer classes.

5. The utility shall use all reasonable methodologies in forecasting, including, as practicable and economically feasible, the disaggregated end-use methodology.

The utilities may initiate various research programs to obtain detailed energy usage information about Hawaii energy customers so this information can be used to develop energy efficiency program designs and forecasts for future energy planning efforts.

3. To the extent practical, the utility should provide load by geographic location on its system.

B. Objectives

- 1. The ultimate objective of a utility's integrated resource plan is meeting the energy needs of the utility's customers over the ensuing 20 years.
- 2. The utility may specify any other utility—specific objective that it seeks to achieve through its integrated resource plan. For example, given the parameter of the State goal of less dependence on imported oil, the utility may set as an objective the achievement of lowering to a specified level the use of imported oil.
- 3. The commission may specify other objectives for the utility. Such specifications, if any, shall be included in the order opening docket for integrated resource planning at the commencement of each planning cycle.

C. Effectiveness Measures

- 1. The utility shall specify the measures bu which attainment of the objective or objectives is to be determined.
- Where direct, quantifiable measures are not available, the utility may utilize proxy measures.

B. Fuel Forecasts

1. The utility shall develop forecasts of the cost of fuel over the planning horizon. It shall develop fuel forecasts for a reasonable number of scenarios that are developed as necessary or appropriate in the development of its CESP scenarios. The utility may retain expert consultants to assist in the development of the fuel forecasts and for other specialized and technical needs related to this purpose.

C. Demand-Side Management Forecasts

- 1. Energy Efficiency The PBF Administrator shall administer all energy efficiency programs in accordance with Public Benefits Fee HRS ch.

 269, part VII and Docket No. 2007-0323. The utilities shall support and participate in the PBF Administrator's implementation of the energy efficiency programs.
 - a. The PBF Administrator, utilities, and stakeholders, such as the advisory committee, shall work together in a collaborative process to design effective, high-impact energy efficiency programs that will be implemented in the Action Plan.
 - b. The PBF Administrator shall lead, in collaboration with the utility and the State, new studies and forecasts to determine the technical and economic potential for a broad variety of energy efficiency measures within Hawaii.
- 2. Demand Response The utility shall be responsible for the administration of demand response and load management programs because of the need to monitor electrical system status while deciding when and to what degree to invoke the demand reductions available through demand response programs. Third-party demand response and load curtailment aggregators should be allowed to support and participate in the utilities' implementation of the demand response programs.

- a. Program costs for existing load management and any new pilots and full-scale demand response programs shall be recovered through the appropriate cost recovery mechanism.
- b. The utility shall lead, in collaboration with the PBF Administrator and the State, new studies and forecasts to determine the technical and economic potential for a broad variety of demand response measures within Hawaii.

D. Distributed Generation Forecast

- 1. The utility shall develop a forecast of the amount of distributed generation that could be installed by utility customers, third parties, or the utility over the planning horizon. The distributed generation resources considered in the forecast shall include, but not be limited to, the following:
 - a. Biofueled and fossil fueled generating resources;
 - b. Combined heat and power resources;
 - c. Photovoltaic resources;
 - d. Small wind and hydro resources; and
 - e. Other small renewable energy resources as defined by HRS \$269-91 of the State's RPS.

[MARRIOTTS]

Any of these resources to be provided by the utilities must be consistent with Commission orders regarding same. Likewise, any of these resources to be provided by the utilities will be subject to the same standby rates, interconnection tariffs, etc., as other projects undertaken by customers and third parties.

2. The distributed generation forecast shall include reexamination of the following:

- a. NEM limits in accordance with Docket No. 2006-0084; and
- b. FIT provisions in accordance with Docket No. 2008-0273.

D.E. Resource Options

- 1. In the development of its integrated resource plan—CESP scenarios, the utility shall consider all feasible supply-side and demand-side resource options appropriate to Hawaii and available within the years encompassed by the integrated resource—clean energy scenario planning horizon to meet the stated objectives governing principles and planning context.
- 2. The utility shall <u>include consider</u> among the options the supply-side and demand-side resources or mixes of options currently in use, promoted, planned, or programmed for implementation by the utility. Supply-side and demand-side resource options include those resources that are or may be supplied by persons other than the utility.
- 3. The utility shall initially identify all possible supply-side and demand-side resource options. The utility may, upon review, screen out those options that are clearly infeasible. An option may be deemed infeasible where the option's life cycle costs clearly outweigh its benefits or effectiveness under both societal cost-benefit and utility cost-benefit assessments. The utility, with the advice of the advisory groups, may establish such other criteria for screening out clearly infeasible options.

The utility shall integrate the Competitive Bidding Framework, Docket No. 03-0372. The CESP scenarios and CESP Action Plan shall identify those resources for which the utility proposes to acquire through competitive bidding, those resources that may be exempt from competitive bidding, and those resources for which the utility will need to seek waivers from competitive bidding, and shall include an explanation of the facts supporting waivers.

- a. The CESP scenarios and CESP Action Plan shall specify the proposed scope of the Request for Proposal for any specific generation resource or block of generation resources that the CESP states will be subject to competitive bidding, including but not limited to the size, timing, and operational characteristics of the generation resource or block of generation resources.
- b. The utility is unable to predict what type of resource and associated costs will be selected as an outcome of implementing the competitive bidding framework. For the purposes of developing the CESP scenarios, the utility may use generic resource data (i.e., biofueled combustion turbine, wind, PV) available for determining the size, timing, and operational characteristics of future resources. The utility shall provide all resource data used in the development of the CESP scenarios.
- 4. The costs and benefits shall, to the extent possible and feasible, be (a) quantified and (b) expressed in dollar terms. When it is neither possible nor feasible to quantify any cost or benefit, such cost or benefit shall be qualitatively measured. The methodology used in quantifying or in qualitatively stating costs and benefits shall be detailed.

E. Data Collection

- 1. For each feasible resource option, the utility shall determine its life cycle costs and benefits and its potential level of achievement of objectives. The utility shall identify the option's total costs and benefits—the costs to the utility and its ratepayers and the indirect, including external (spillover), costs and benefits. External costs and benefits include the cost and benefit impact on the environment, people's lifestyle and culture, and the State's economy.
- 2. To the extent helpful in analysis, the utility shall distinguish between fixed costs and

- variable costs and between sunk costs and incremental costs; and the utility shall identify any opportunity costs.
- 3. The costs and benefits shall, to the extent possible and feasible, be (a) quantified and (b) expressed in dollar terms. When it is neither possible nor feasible to quantify any cost or benefit, such cost or benefit shall be qualitatively measured. The methodology used in quantifying or in qualitatively stating costs and benefits shall be detailed.

F. Locational Value Maps

- 1. The utility shall identify general geographic areas of distribution system growth within the next 3-5 years where distributed resources and energy efficiency could be beneficial within the existing transmission and distribution system limits.
- 2. The utility shall identify general geographic areas of distribution system penetration by all forms distributed generation resources.
- 3. The utility shall identify general geographic areas rather than individual circuits to maximize benefits and incorporate back-up system needs.
- 4. The information from the Locational Value Maps shall be provided to parties such as the PBF Administrator so that energy efficiency DSM can be focused into geographic areas that would most benefit from energy efficiency DSM programs.
- 5. The utility should use the Locational Value Map to identify Clean Energy Investment Zones. The utility should publicize the existence of these zones in conjunction with the utility's education efforts following the completion of the CESP.

G. Renewable Energy Zones

1. The Energy Resources Coordinator as defined in HRS ch. 196, part III, section 196-4 most recently modified by Act 155 shall identify

Renewable Energy Zones where areas of its service territory contain significant renewable resource potential and coordinate with the utility. The CESP shall identify possible infrastructure requirements needed to interconnect the utility's grid to the REZ and operationally integrate renewable resources that may be developed in the REZ with the utility's system.

F.H. Assumptions; Risks; Uncertainties

- The utility shall identify the assumptions underlying any <u>forecast</u>, resource option, or the cost or benefit of any option or any analysis performed.
- 2. The utility shall also identify the risks and uncertainties associated with each <u>forecast and</u> resource option.
- 3. The utility shall further identity any technological limitations, infrastructural constraints, legal and governmental policy requirements, and other constraints that impact on any option or the utility's analysis.

G.I. Models

- The utility may utilize any reasonable model or models in comparing resource options and otherwise in analyzing the relative values of the various options or combinations of options.
- Each model used must be fully described and documented.

H.J. Analyses

1. The utility shall conduct cost-benefit and cost-effectiveness analyses to compare and weigh the various options and various alternative mixes of options. Alternative mixes of options include variously integrated supply-side and demand-side management programs.

- 2. The utility shall conduct such analyses from varying perspectives, including the utility cost perspective, the ratepayer impact perspective, the participant impact perspective, the total resource cost perspective, and the societal cost perspective.
- 3. The utility shall analyze all options on a consistent and comparable basis. It shall give the costs, effectiveness, and benefits of demand-side management options consideration equal to that given to the costs, effectiveness, and benefits of supply-side options. The utility may use any reasonable and appropriate means to assure that such equal consideration is given.
- 4. The utility shall compare the options on the present value basis. For this purpose, the utility shall discount the estimated annual costs (and benefits, as appropriate) at an appropriate rate. The utility shall fully explain the rationale for its choice of the discount rate.
- 5. The utility may rank, as appropriate the various options and mixes of options upon such reasonable criterion as it may establish with the advice of its advisory groups.
- 1. The CESP scenarios should focus on higher level planning using a portfolio of energy resources/types rather than identifying specific details on individual resources in the plan.
- 2. The utility shall review the CESP scenarios to look for common themes, assets and strategies that demonstrate robust value to balance costs and risks across many of the scenarios evaluated. Resources and strategies that provide the greatest value and flexibility across a wide range of potential futures and uncertainties shall be identified.
- 3. The CESP scenarios shall identify the preferred energy contributions from various resources, taking into account the differing renewable energy impact, emissions, fossil fuel usage and

- cost (utility and total resource cost perspective) into consideration. All existing contractual and forward looking operational requirements and constraints on the utility grid shall be factored into the analysis.
- 4. The utility shall compare the CESP scenarios on the present value basis. For this purpose, the utility shall discount the estimated annual costs (and benefits, as appropriate) at an appropriate rate. The utility shall fully explain the rationale for its choice of the discount rate.
- 5. The CESP scenarios shall be supported by quantitative and qualitative analyses to the extent reasonably possible and feasible.
- 6. Technical analyses shall be performed to determine the extent to which renewable resources with certain types of characteristics (e.g., variable, as-available resources, or fixed dispatched resources) can be integrated into the utility system grid while maintaining stability and reliability.
- 7. The utility shall conduct a high-level load flow transmission system analysis building on the base case planning considerations, evaluating grid conditions and flows for no less than a three-year period. The CESP scenarios shall evaluate system level distributed generation and DSM impact, taking into account the aggregate system impact to load and load flows on the transmission system to determine transmission and generation system benefits. New transmission assets triggered by load growth, addition of new or expanded generation, or a change in planning criteria that require Commission approval shall be identified.
- 8. The utility shall provide estimates of potential impacts of the CESP scenarios on customer rates and bills.
- 9. The CESP scenarios shall identify the size, timing, and operational characteristics of future resources in accordance with the

- Competitive Bidding Framework, Docket No. 03-0372.
- 10. The CESP scenarios shall provide guidance for the utilities to develop the CESP Action Plan.

I. Resource Optimization

- 1. Based on its analyses, the utility shall select those resource options or mix of resource options that achieve that level of effectiveness or that level of benefits specified in the objectives at the least cost. The utility shall also identify those resource options or mix of resource options that achieve the highest level of effectiveness or level of benefits at various levels of cost
 - a. The options or mix of options shall be selected in a fashion as to achieve an integration of supply-side an demand-side options.
 - b. The selection of options or mix of options constitutes the utility's integrated resource plan.
- 2. The utility shall develop a number of alternative plans, each representing optimization from a differing perspective, including the perspective of the utility, the ratepayers, the non-participant, and society. It shall also develop alternate plans to meet the needs identified by each demand forecast scenario.
- 3. For each plan, the utility shall identify the revenue requirements on a present value and annual basis. It shall note the risks and uncertainties associated with the plan. It shall also describe the plan's impact on rates, customer energy use, customer bills, and the utility system. It shall also describe the plan's impact on external elements—the environment, people's lifestyle and culture, the State's economy, and society in general.
- 4. The utility shall rank the various plans, based on such criterion as it may establish with the

advice of its advisory groups. The utility shall designate one of these plans as its preferred plan and submit to the commission the preferred plan as its integrated resource plan.

J. Sensitivity Analysis

The utility shall subject its selection of resource options to sensitivity analysis by altering assumptions and other parameters.

IV. Planning Considerations

A. Scenarios of Possible Futures

The utility shall develop a set of scenarios of plausible futures to highlight the major driving forces and/or uncertainties that may push the future in different directions, and are critical to the focal issues or decisions in the utility's resource planning.

B. Locational Value Maps

The utility shall develop Locational value maps showing the geographic areas of the utility's delivery system where renewable resources, distributed generation and/or energy efficiency may be most beneficial to the system, as well as the existing delivery systems in the forecasted growth areas.

A.C. Forecast Forecasts

- The utility shall develop a range of forecasts of the amount of energy consumers will need over the planning horizon. It of the variables or elements required for scenario planning such as the amount of energy consumers will need over the planning horizon, fuel prices, energy prices, economic conditions, demographics, population growth, technological improvements, other similar variables. The utility shall develop forecasts for multiple scenarios that are necessary or appropriate in the development of its integrated resource action plan. Among the scenarios are the base case scenario (a scenario based on the most likely assumptions), a high-growth scenario, and a low-growth scenario.
- 2.1. Each forecast shall identify the significant demand and use determinants; describe the data, the sources of the data, the assumptions (including assumptions about fuel prices, energy prices, economic conditions, demographics, population growth, technological improvements, and end-use), and the analysis upon which the forecast is based; indicate the

relative sensitivity of the forecast result to changes in assumptions and varying conditions; and describe the procedures, methodologies, and models used in the forecast, together with the rationale underlying the use of such procedures, methodologies, and models.

- 3. Among the data to be considered are historical data on energy sales, peak demand, system load factor, system peaks, and such other data of sufficient duration to provide a reasonable basis for the utility's estimates of future demand.
- 4. As feasible and appropriate, the forecast shall be by the system as a whole and by customer classes.
- 5. The utility shall use all reasonable methodologies in forecasting, including, as practicable and economically feasible, the disaggregated end-use methodology.

B.D. Planning Objectives

- 1. The ultimate objective of a utility's integrated resource plan is meeting the energy needs of the utility's customers over the ensuing 20 years.
- 2. The utility may specify any other utilityspecific objective that it seeks to achieve
 through its integrated resource plan. For
 example, given the parameter of the State goal
 of less dependence on imported oil, the utility
 may set as an objective the achievement of
 lowering to a specified level
 the use of imported oil.

The objectives of the utility's resource plan or plans resulting from the CESP process include:

- 1. To meet the consumers' future energy needs in an integrated, efficient, reliable, and cost-effective manner.
- 2. To achieve the State goals of energy independence and security and its attendant economic and environmental benefits, by meeting or surpassing the statutorily mandated

renewable portfolio standards (RPS) and energy efficiency portfolio standards (EEPS).

- To identify and plan for the required transmission and delivery infra-structure upgrades and expansions necessary to increase the system capability and resiliency to meet the consumers' future energy needs with the use of clean renewable energy resources and technology consistent with the State energy quals.
- 3. The commission may specify other objectives for the utility. Such specifications, if any, shall be included in the order opening docket for integrated resource planning at the commencement of each planning cycle.

C.E. Effectiveness Measures

- The utility shall specify the measures by which attainment of the objective or objectives is to be determined.
- Where direct, quantifiable measures are not available, the utility may utilize proxy measures.

D.F. Resource Options

- 1. In the development of its integrated resource plan the strategy for each scenario, the utility shall consider all feasible supply-side and demand-side resource options appropriate to Hawaii and available within the years encompassed by the integrated resource scenario planning horizon to meet the stated objectives.
- 2. The utility shall may include among the options the supply-side and demand-side resources or mixes of options currently in use, promoted, planned, or programmed for implementation by the utility. Supply-side and demand-side resource options include those resources that are or may be supplied by persons other than the utility.
- 3. The utility shall initially identify all possible supply-side and demand-side resource options. The utility may, upon review, screen

out those options that are clearly infeasible. An option may be deemed infeasible where the option's life cycle costs clearly outweigh its benefits or effectiveness under both societal cost-benefit and utility cost-benefit assessments. The utility, with the advice of the advisory groups, may establish such other criteria for screening out clearly infeasible options.

The utility must consider all supply-side and demand-side resources that may be provided or acquired through all the procurement methods or programs including net energy metering and feed-in tariffs program, and other programs or initiatives designed to promote customer-owned and/or customer-sited renewable energy systems.

E.G. Data Collection

- 1. For each feasible resource option, the utility shall determine its life cycle costs and benefits and its potential level of achievement of objectives. The utility shall identify the option's total costs and benefits—the costs to the utility and its ratepayers and the indirect, including external (spillover), costs and benefits. External costs and benefits include the cost and benefit impact on the environment, people's lifestyle and culture, and the State's economy.
- 2. To the extent helpful in analysis, the utility shall distinguish between fixed costs and variable costs and between sunk costs and incremental costs; and the utility shall identify any opportunity costs.
- 3. The costs and benefits shall, to the extent possible and feasible, be (a) quantified and (b) expressed in dollar terms. When it is neither not possible nor feasible to quantify any cost or benefit, such cost or benefit shall be qualitatively measured. The methodology used in quantifying or in qualitatively stating costs and benefits shall be detailed.

F. Assumptions; Risks; Uncertainties

- 1. The utility shall identify the assumptions underlying any resource option or the cost or benefit of any option or any analysis performed.
- 2. The utility shall also identify the risks and uncertainties associated with each resource option.
- 3. The utility shall further identity any technological limitations, infrastructural constraints, legal and governmental policy requirements, and other constraints that impact on any option or the utility's analysis.

G.H. Models

- 1. The utility may utilize any reasonable model or industry planning models or methodology in comparing resource options and otherwise in analyzing the relative values of the various options or combinations of options.
- Each model or methodology used must be fully described and documented.

H.I. Analyses

- 1. The utility shall conduct cost-benefit and cost-effectiveness analyses to compare and weigh the various options and various alternative mixes of options. Alternative mixes of options include variously integrated supply-side and demand-side management programs. each strategy, resource, and program included in the action plan.
- 2. The utility shall may conduct such analyses from varying perspectives, including the utility cost perspective, the ratepayer impact perspective, the participant impact perspective, the total resource cost perspective, and the societal cost perspective.
- 3. The utility shall analyze all supply-side and demand-side options on a consistent and comparable basis. It shall give the costs,

effectiveness, and benefits of demand-side management options consideration equal to that given to the costs, effectiveness, and benefits of supply-side options. The utility may use any reasonable and appropriate means to assure that such equal consideration is given.

- 4. The utility shall compare the options on the present value basis. For this purpose, the utility shall discount the estimated annual costs (and benefits, as appropriate) at an appropriate rate. The utility shall fully explain the rationale provide the basis for its choice of the discount rate.
- 5. The utility may rank, as appropriate the various options and mixes of options upon such reasonable criterion as it may establish with the advice of its advisory groups.

I. Resource Optimization

- 1. Based on its analyses, the utility shall select those resource options or mix of resource options that achieve that level of effectiveness or that level of benefits specified in the objectives at the least cost. The utility shall also identify those resource options or mix of resource options that achieve the highest level of effectiveness or level of benefits at various levels of cost
 - a. The options or mix of options shall be selected in a fashion as to achieve an integration of supply-side an demand-side options.
 - b. The selection of options or mix of options constitutes the utility's integrated resource plan.
- 2. The utility shall develop a number of alternative plans, each representing optimization from a differing perspective, including the perspective of the utility, the ratepayers, the non-participant, and society. It shall also develop alternate plans to meet the needs identified by each demand forecast scenario.

- 3. For each plan, the utility shall identify the revenue requirements on a present value and annual basis. It shall note the risks and uncertainties associated with the plan. It shall also describe the plan's impact on rates, customer energy use, customer bills, and the utility system. It shall also describe the plan's impact on external elements—the environment, people's lifestyle and culture, the State's economy, and society in general.
- 4. The utility shall rank the various plans, based on such criterion as it may establish with the advice of its advisory groups. The utility shall designate one of these plans as its preferred plan and submit to the commission the preferred plan as its integrated resource plan.

J. Sensitivity Analysis

The utility shall subject its selection of resource options to sensitivity analysis by altering assumptions and other parameters.

[CTYS]

IV. PLANNING CONSIDERATIONS

A. Forecast Scenarios

Each utility, in consultation with advisory group(s), shall develop scenarios to guide integrated resource planning, including but not limited to possible assumptions, regarding future demand, the availability, characteristics and costs of resource options, and other principal factors that would affect the determination of prudent integrated resource plans. Scenarios may be based on circumstances outside the control of the utilities and commission (e.g., major increases in oil prices) or within their control (e.g., a major resource strategy). A sufficient number and range of scenarios should be developed to (1) incorporate a broad range of perspectives and input from nonutility stakeholders and the public; (2) provide meaningful breadth to the scope of analysis and assumptions; (3) frame meaningful planning objectives and measures of attainment; and (4) test the robustness of candidate strategies with respect to a range of possible future circumstances and risks.

B. Forecasts

Forecasts shall be conducted with respect to each scenario to inform the development of each utility's integrated resource plan.

2. Demand

- 1.a. The utility, in consultation with advisory group(s), shall develop a range of forecasts of the amount of energy consumers will need demand over the planning horizon.—It shall develop forecasts for multiple scenarios that are necessary or appropriate in the development of its integrated resource plan. Among the scenarios are the base case scenario (a scenario based on the most likely assumptions), a high-growth scenario, and a low-growth scenario.
- 2.b. Each forecast shall identify the significant demand and use determinants; describe the data, the sources of the data, the assumptions (including assumptions about fuel prices, energy prices, economic conditions, demographics, population growth, technological improvements, and end-use), and the analysis upon which the forecast is based; indicate the relative sensitivity of the forecast result to changes in assumptions and varying conditions; and describe the procedures, methodologies, and models used in the forecast, together with the rationale underlying the use of such procedures, methodologies, and models.
- Among the data to be considered are historical data on energy sales, peak demand, system load factor, system peaks, and such other data of sufficient duration to provide a reasonable basis for the utility estimates of future demand.

- 4.d. As feasible and appropriate, the forecast shall be by the system as a whole and by customer classes.
- 5. The utility shall use all reasonable methodologies in forecasting, including, as practicable and economically feasible, the disaggregated end-use methodology.

2. Demand-Side Management

- a. Energy Efficiency: The PBFA shall work with each utility and advisory group(s) to develop a range of forecasts of the potential development of energy efficiency programs over the planning horizon.
- b. Load management: Each utility shall work with the PBFA and advisory group(s) to develop a range of forecasts of the potential development of demand response and load management programs, including rate and fee design measures, over the planning horizon.

3. Distributed Generation

Each utility shall work with advisory group(s) to develop a range of forecasts of the amount of distributed generation development and penetration via NEM, FIT, and other means.

B.C. Objectives

- The ultimate objective of a each utility's integrated resource plan is to achieve and exceed Clean Energy Objectives in meeting the energy needs of the utility's customers over the ensuing 20 years.
- 2. The utility may specify any other utility—
 specific objective that it seeks to achieve
 through its integrated resource plan. For
 example, given the parameter of the State goal
 of less dependence on imported oil, the utility
 may set as an objective the achievement of
 lowering to a specified level
 the use of imported oil. Each utility, in
 consultation with advisory group(s), shall
 identify a meaningful set of planning
 objectives for its integrated resource plan and

shall identify more specific, shorter-term objectives for its action plans to facilitate achievement the objectives of the integrated resource plan and provide benchmarks to measure progress.

- 3. The commission may specify other objectives for the utility. Such specifications, if any, shall be included in the order opening docket for integrated resource planning at the commencement of each planning cycle plan or action plans.
- 4. An advisory group may recommend objectives for the integrated resource plan or action plans to the utility or the commission.

C.D. Effectiveness Measures

- 1. The utility integrated resource plan and action plans shall specify the measures by which attainment of the objective or objectives is to be determined.
- 2. Where direct, quantifiable measures are not available, the utility may utilize proxy measures may be used.

D.E. Resource Options

- In the development of its integrated resource plan, the utility shall consider all feasible supply-side and demand-side resource options appropriate to <u>Hawaii Hawai'i</u> and available within the years encompassed by the integrated resource planning horizon to meet the stated objectives.
- 2. The utility shall include among the options the supply-side and demand-side resources or mixes of options currently in use, promoted, planned, or programmed for implementation by the utility, as well as potential or planned retirements of existing resources in favor of clean energy resources. Supply-side and demand-side resource options include those resources that are or may be supplied by persons other than the utility.

3. The utility shall initially identify all possible supply-side and demand-side resource options. The utility may, upon review and consultation with advisory group(s), screen out those options that are clearly infeasible. An option may be deemed infeasible where the option's life cycle costs clearly outweigh its benefits or effectiveness under both societal cost-benefit and utility cost-benefit assessments. The utility, in consultation with the advice of the advisory groups group(s), may establish such other criteria for screening out clearly infeasible options.

E.F. Data Collection

- 1. For each feasible resource option, the utility shall determine its life cycle costs and benefits and its potential level of achievement of objectives. The utility shall identify the option—'s total costs and benefits—the costs to the utility and its ratepayers and the indirect, including external (spillover)—costs and benefits. External costs and benefits include the cost and benefit impact on the environment, people—'s lifestyle and culture, and the State—'s economy.
- To the extent helpful in analysis, the utility shall distinguish between fixed costs and variable costs and between sunk costs and incremental costs; and the utility shall identify any opportunity costs.
- 3. The costs and benefits shall, to the extent possible and feasible, be (a) quantified and (b) expressed in dollar terms. When it is neither possible nor feasible to quantify any cost or benefit, such cost or benefit shall be qualitatively measured. The methodology used in quantifying or in qualitatively stating costs and benefits shall be detailed.

F.G. Assumptions; Risks; Uncertainties

 The utility shall identify the assumptions underlying any resource option or the cost or benefit of any option or any analysis performed.

- The utility shall also identify the risks and uncertainties associated with each resource option.
- 3. The utility shall further identify identity any technological limitations, infrastructural constraints, legal and governmental policy requirements, and other constraints that impact on any option or the utility analysis.

G.H. Models

- 1. The utility may utilize any reasonable model or one or more generally accepted planning models or methodologies in comparing resource options and otherwise in analyzing the relative values of the various options or combinations of options.
- 2. Each model <u>or methodology</u> used must be fully described <u>and</u>, documented, and explained in terms that a layperson can understand.

H.I. Analyses

- The utility shall conduct cost-benefit and cost-effectiveness analyses to compare and weigh the various options and various alternative mixes of options. Alternative mixes of options include variously integrated supply-side and demand-side management programs.
- 2. The utility shall conduct such analyses from varying perspectives, including, as appropriate, the utility cost-benefit perspective, the ratepayer impact perspective, the participant impact perspective, the total resource cost perspective, and the societal cost-benefit perspective.
- 3. The utility shall analyze all options on a consistent and comparable basis. It shall give the costs, effectiveness, and benefits of demand-side management options consideration equal to that given to the costs, effectiveness, and benefits of supply-side options. The utility may use any reasonable and appropriate means to assure that such equal consideration is given.

- 4. The utility shall compare the options on the present value basis. For this purpose, the utility shall discount the estimated annual costs (and benefits, as appropriate) at an appropriate rate. The utility shall fully explain the rationale for its choice of the discount rate.
- 5. The utility may rank, as appropriate shall prioritize the various options and mixes of options based on the goal and principles set forth in Part II.A & B, supra, and upon such reasonable criterion additional criteria as it may establish in consultation with the advice of its advisory groups group(s).

I.J. Resource Optimization

- 1. The utility, in consultation with advisory group(s), shall develop a number of alternative strategies to meet the planning objectives.

 Strategies may be based on any of various themes, including addressing specific scenarios or featuring specific resource options. A sufficient spectrum of strategies should be developed and analyzed to consider the scope of the identified plausible resource options and planning scenarios.
- 2. Based on its analyses, the utility, in consultation with advisory group(s), shall select those resource options or mix of resource options strategies that best achieve that level of effectiveness or that level of benefits specified in the planning objectives at the least cost. The utility shall also identify those resource options or mix of resource options that achieve the highest level of effectiveness or level of benefits at various levels of cost considered across the range of scenarios.
 - a. The options or mix-of-options-strategies shall be selected in a fashion as to achieve an integration of supply-side and demand-side options.
 - b. The selection of options or mix of options strategies constitutes the utility integrated resource plan.

- 2. The utility shall develop a number of alternative plans, each representing optimization from a differing perspective, including the perspective of the utility, the ratepayers, the non-participant, and society. It shall also develop alternate plans to meet the needs identified by each demand forecast scenario.
- identify the revenue requirements on a present value and annual basis. It shall note the risks and uncertainties associated with the plan. It shall also and describe the plan's strategy's impact on rates, customer energy use, customer bills, and the utility system. It shall also describe the plan's strategy's impact on external elements—the environment, people's lifestyle and culture, the State's economy, and society in general.
- 4. The utility shall rank the various plans strategies, based on such criterion criteria as it may establish in consultation_with-the advice of its advisory groups group(s). The utility shall designate one or some combination of these plans strategies as its preferred plan and submit to the commission the preferred plan as its proposed_integrated resource plan-, along with the alternative plans. It is recognized that the proposed integrated resource plan may not be the least expensive strategy and may include resource options and/or contingency measures to reasonably attain the planning objectives in light of uncertainty regarding the planning scenarios.

J.K. Sensitivity Analysis

The utility shall subject its selection of resource options to sensitivity analysis by altering assumptions and other parameters.

IV. Planning Considerations

A. Forecast

- 1. The utility shall develop a range of forecasts of the amount of energy consumers will need over the planning horizon. It shall develop multiple forecasts that are necessary or appropriate in the development of its integrated resource plan. Among the forecasts to be considered are the base case forecast (a forecast based on the most likely assumptions), a high-growth forecast, and a low-growth forecast.
- 2. Each forecast shall identify the significant demand and use determinants; describe the data, the sources of the data, the assumptions (including assumptions about energy policies and initiatives, fuel prices, energy prices, economic conditions, demographics, population growth, technological improvements, and enduse), and the analysis upon which the forecast is based; indicate the relative sensitivity of the forecast result to changes in assumptions and varying conditions; and describe the procedures, methodologies, and models used in the forecast, together with the rationale underlying the use of such procedures, methodologies, and models.
- 3. Among the data to be considered are historical data on energy sales, peak demand, system load factor, system peaks, and such other data of sufficient duration to provide a reasonable basis for the utility's estimates of future demand.
- 4. As feasible and appropriate, the forecast shall be by the system as a whole and by customer classes.
- 5. The utility shall use all reasonable methodologies in forecasting, including, as practicable and economically feasible, the disaggregated end-use methodology.

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B. Objectives

1. The ultimate objective of a utility's integrated resource plan is meeting the energy needs of the utility's consumers over the ensuing 20 years in a manner that comports with state and county environmental, health, and safety laws (including any applicable renewable portfolio standards) and considers and analyzes any established energy policies and initiatives in effect at that time.

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- 2. The utility may specify any other utilityspecific objective that it seeks to achieve
 through its integrated resource plan. For
 example, given the parameter of the State goal
 of less dependence on imported oil, the utility
 may set as an objective the achievement of
 lowering to a specified level the use of
 imported oil.
- 3. The commission may specify other objectives for the utility. Such specifications, if any, shall be included in the order opening docket for integrated resource planning at the commencement of each planning cycle.

C. Effectiveness Measures

 The utility shall specify the measures by which attainment of the objective or objectives is to be determined.

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 Where direct, quantifiable measures are not available, the utility may utilize proxy measures.

D. Resource Options

 In the development of its integrated resource plan, the utility shall consider all feasible resource options appropriate to Hawaii and available within the years encompassed by the integrated resource planning horizon to meet the stated objectives.

Deleted: supply-side and demand-side

 The utility shall include among the options the supply-side and demand-side resources or mixes of options currently in use, promoted, planned,

- 3. Supply-side and demand-side resource options include those resources that are or may be supplied by persons other than the utility.
- 4. The utility shall initially identify all possible supply-side and demand-side resource options. The utility may, upon review, screen out those options that are clearly infeasible. An option may be deemed infeasible where the option's life cycle costs clearly outweigh its benefits or effectiveness under both societal cost-benefit and utility cost-benefit assessments. The utility, with the advice of the advisory groups, may establish such other criteria for screening out clearly infeasible options.

E. Data Collection

- 1. For each feasible resource option, the utility shall determine its life cycle costs and benefits and its potential level of achievement of objectives. The utility shall identify the option's total costs and benefits—the costs to the utility and its ratepayers and the indirect, including external (spillover), costs and benefits. External costs and benefits include the cost and benefit impact on the environment, people's lifestyle and culture, and the State's economy.
- 2. To the extent helpful in analysis, the utility shall distinguish between fixed costs and variable costs and between sunk costs and incremental costs; and the utility shall identify any opportunity costs.
- 3. The costs and benefits shall, to the extent possible and feasible, be (a) quantified, and (b) expressed in dollar terms. When it is neither possible nor feasible to quantify any cost or benefit, such cost or benefit shall be qualitatively measured. The methodology used in quantifying or in qualitatively stating costs and benefits shall be detailed.

F. Assumptions; Risks; Uncertainties

- The utility shall identify the assumptions underlying any resource option or the cost or benefit of any option or any analysis performed.
- 2. The utility shall also identify the risks and uncertainties associated with each resource option.
- 3. The utility shall further identity any technological limitations, infrastructural constraints, legal and governmental policy requirements, and other constraints that impact on any option or the utility's analysis.

G. Models

- 1. The utility may utilize any reasonable model or models in comparing resource options and otherwise in analyzing the relative values of the various options or combinations of options.
- Each model used must be fully described and documented.

H. Analyses

 The utility shall conduct cost-benefit and cost-effectiveness analyses to compare and weigh the various options and various alternative mixes of options. Alternative mixes of options include variously integrated supply-side and demand-side programs.

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- 2. The utility shall conduct such analyses from varying perspectives, including the utility cost perspective, the ratepayer impact perspective, the participant impact perspective, the total resource cost perspective, and the societal cost perspective.
- 3. The utility shall analyze all options on a consistent and comparable basis. It shall give the costs, effectiveness, and benefits of demand-side management options consideration equal to that given to the costs, effectiveness, and benefits of supply-side options. The utility may use any

reasonable and appropriate means to assure that such equal consideration is given.

- 4. The utility shall compare the options on the present value basis. For this purpose, the utility shall discount the estimated annual costs (and benefits, as appropriate) at an appropriate rate. The utility shall fully explain the rationale for its choice of the discount rate.
- 5. The utility may rank, as appropriate, the various options and mixes of options upon such reasonable criterion as it may establish with the advice of its advisory groups.

I. Resource Optimization

1. Based on its analyses, the utility shall select those resource options or mix of resource options that achieve that level of effectiveness or that level of benefits specified in the objectives at the lowest reasonable cost. The utility shall also identify those resource options or mix of resource options that achieve the highest level of effectiveness or level of benefits at various levels of cost.

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- a. The options or mix of options shall be selected in a fashion as to achieve an integration of supply-side and demand-side options.
- b. The selection of options or mix of options constitutes the utility's integrated resource plan.
- 2. The utility shall develop a number of alternative plans considering differing energy policies and initiatives, each representing optimization from a differing perspective, including the perspective of the utility, the ratepayers, the non-participant, and society. It shall also develop alternate plans to meet the needs identified by each demand forecast.

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3. For each plan, the utility shall identify the revenue requirements on a present value and annual basis. It shall note the risks and uncertainties

associated with the plan. It shall describe the plan's impact on rates, consumer energy use, consumer bills, and the utility system. It shall also describe the plan's impact on external elements—the environment, people's lifestyle and culture, the State's economy, and society in general.

4. The utility shall rank the various plans, based on such criterion as it may establish with the advice of its advisory groups. The utility shall designate one of these plans as its preferred plan and submit to the commission the preferred plan as its integrated resource plan.

J. Sensitivity Analysis

The utility shall subject its selection of resource options to sensitivity analysis by altering assumptions and other parameters.

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V. Pilot Demand-side Management Programs

[HECO Cos]

A. Purposes

- 1. A purpose of piloting demand-side management programs is to ascertain whether a given program, not yet proven in Hawaii, is costeffective--whether it will have the penetration and will achieve accomplishment of the utility's objectives as originally believed.
- 2. A second purpose of piloting demand-side management programs is to determine whether the program design and configuration (including how it is managed and promoted) are such as to permit implementation of the program as efficiently and effectively as desired.

B. Utility Pilot Programs

1. A utility may implement on a full-scale basis (without pilot testing) any demand-side management demand response program that has been proven cost effective as a result of a full-scale or pilot implementation of the program in another comparable utility service territory or as a result of pilot testing by a utility in Hawaii. In all other case, the utility shall pilot test a demand-side management program before implementing it on a full-scale basis.

[MARRIOTTS]

1. A utility may implement on a full-scale basis (without pilot testing) any demand response program that has been proven cost effective as a result of a full-scale or pilot implementation of the program in another service territory or as a result of pilot testing in Hawaii. Such programs shall only be implemented consistent with Commission rules, regulations, orders, rates and tariffs regarding same. Likewise, such programs shall be subject to the same applicable rules, regulations, orders, rates, tariffs, etc., as other project undertaken by customers and third parties.

- Each The utility shall may develop appropriate 2. pilot demand-side management demand response programs for implementation without awaiting commission approval on its initial integrated resource plan. For each program, the utility shall clearly articulate the parameters of the program, the objectives to be attained by the program, the expected level of achievement of the objectives, the measures by which the attainment of the objectives is to be assessed, the data to be gathered to assist in the evaluation of the pilot program, and the expenditure it proposes to make by appropriate cost components of the utility's CESP Action Plan.
- 3. All <u>utility</u> proposed pilot <u>demand-side</u> management <u>demand response</u> programs are subject to commission approval.

[MARRIOTTS]

3. All utility proposed pilot demand response programs are subject to Commission approval after an appropriate filing and hearing. In addition, the utility shall post on its website, on the same date as any such filing is filed with the Commission, a copy of the filing in downloadable, PDF format under the heading "CESP And Related Filings And Orders." The utility shall simultaneously post the docket number assigned to the filing by the Commission.

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- 2. Each utility shall develop appropriate pilot demand-side management programs for implementation without awaiting commission approval on its initial integrated resource plan. For each program, the utility shall clearly articulate the parameters of the program, the objectives to be attained by the

program, the expected level of achievement of the objectives, the measures by which the attainment of the objectives is to be assessed, the data to be gathered to assist in the evaluation of the pilot program, and the expenditure it proposes to make by appropriate cost components.

3. All proposed pilot demand-side management programs are subject to commission approval.

[CTYS]

V. PILOT DEMAND-SIDE MANAGEMENT PROGRAMS

A. Purposes

- 1. A purpose of piloting demand-side management programs is to ascertain whether a given program, not yet proven in Hawaii, is cost-effective-- whether it will have the penetration and will achieve accomplishment of the utility's objectives as originally believed.
- 2. A second purpose of piloting demand-side management programs is to determine whether the program design and configuration (including how it is managed and promoted) are such as to permit implementation of the program as efficiently and effectively as desired.

B. Utility Pilot Programs

1. A utility may implement on a full-scale basis (without pilot testing) any demand-side management program that has been proven cost effective as a result of a full-scale or pilot implementation of the program in another comparable utility service territory or as a result of pilot testing by a utility in Hawaii. In all other case, the utility shall pilot test a demand-side management program before implementing it on a full-scale basis.

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- 3. All proposed pilot demand-side management programs are subject to commission approval.

[KIUC]

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- 3. All proposed pilot demand-side management programs are subject to commission approval.